

DRAFT

**INITIAL STUDY
MITIGATED NEGATIVE DECLARATION**

VALLECITO CREEK WATERSHED REHABILITATION PROJECT

June 2007



State of California
DEPARTMENT OF PARKS AND RECREATION



NOTICE OF AVAILABILITY AND INTENT TO ADOPT AN INITIAL STUDY/NEGATIVE DECLARATION FOR THE PROPOSED VALLECITO CREEK WATERSHED REHABILITATION PROJECT

Date: June 6, 2007

To: Interested Agencies, Organizations, and Individuals

The California Department of Parks and Recreation (DPR) has directed the preparation of and intends to adopt a Mitigated Negative Declaration for the proposed project, in compliance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines. DPR is the lead agency for the proposed project under CEQA.

PROJECT LOCATION: Anza-Borrego Desert State Park, San Diego County

DESCRIPTION OF THE PROPOSED PROJECT: The project is the removal of non-native tamarisk (*Tamarix* sp.) from two sections of the Vallecito Creek drainage, Campbell Grade and Vallecito Cienega, within Anza-Borrego Desert State Park. Two small areas of tamarisk invasion on immediately adjacent Bureau of Land Management property along Vallecito Creek will also be rehabilitated. The property on which the primary restoration will occur is a recent acquisition by State Parks, and past private activities have resulted in tamarisk invasion. Tamarisk removal will be conducted on approximately 190 acres of creek drainage-way and adjacent uplands. All tamarisk removal will be done using hand tools and herbicide. Cut material will be left in the vicinity of the creek, but moved out of wetland areas. No vehicles will be entering the drainage area. Work will be conducted primarily between October 15 and March 14 to avoid impacts to the least Bell's vireo. A cultural resources monitor will be present during tamarisk removal operations to ensure avoidance of sensitive cultural resources.

PUBLIC REVIEW PERIOD: The Initial Study/Mitigated Negative Declaration is being circulated for public review and comment for a period of 30 days, beginning June 6, 2007. Questions regarding the project should be directed to David Lawhead at (760) 767-4315 or by email at dlawhead@parks.ca.gov.

Your views and comments on this project are welcomed. Written comments should be submitted no later than July 5, 2007. They may be sent by mailing, fax, or e-mail to the following address, and must include a contact name and mailing address.

David Lawhead, Environmental Coordinator
Colorado Desert District
California Department of Parks and Recreation
200 Palm Canyon Drive
Borrego Springs, CA 94002
dlawhead@parks.ca.gov
(760) 767-3427

Copies of the Initial Study/Mitigated Negative Declaration may be reviewed online at: http://www.parks.ca.gov/?page_id=983, or at the following locations during normal business hours:

- Colorado Desert District Headquarters
California Department of Parks & Recreation
200 Palm Canyon Drive
Borrego Springs, CA 92004
- Anza-Borrego Desert State Park Ranger Office
225 Montezuma Valley Road
Borrego Springs, CA 92004
- Julian Library
1850 Highway 78
Julian, CA 92036

MITIGATED NEGATIVE DECLARATION

PROJECT: VALLECITO CREEK WATERSHED REHABILITATION PROJECT

LEAD AGENCY: California Department of Parks and Recreation

AVAILABILITY OF DOCUMENTS: The Initial Study for this Mitigated Negative Declaration is available for review at:

- Colorado Desert District Headquarters
California Department of Parks & Recreation
200 Palm Canyon Drive
Borrego Springs, CA 92004
- Anza-Borrego Desert State Park Ranger Office
225 Montezuma Valley Road
Borrego Springs, CA 92004
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PROJECT DESCRIPTION:

The project is the removal of non-native tamarisk (*Tamarix* sp.) from two sections of the Vallecito Creek drainage, Campbell Grade and Vallecito Cienega, within Anza-Borrego Desert State Park, San Diego County. Two small areas of tamarisk invasion on immediately adjacent Bureau of Land Management property along Vallecito Creek will also be rehabilitated. The property on which the primary restoration will occur is a recent acquisition by State Parks, and past private activities have resulted in tamarisk invasion. Tamarisk removal will be conducted on approximately 190 acres of creek drainage-way and adjacent uplands. All tamarisk removal will be done using hand tools and herbicide. Cut material will be left in the vicinity of the creek, but moved out of wetland areas. No vehicles will be entering the drainage area. Work will be conducted primarily between October 15 and March 14 to avoid impacts to the least Bell's vireo. A cultural resources monitor will be present during tamarisk removal operations to ensure avoidance of sensitive cultural resources.


A copy of the Initial Study is attached. Questions or comments regarding this Initial Study/Mitigated Negative Declaration may be addressed to:

David Lawhead, District Environmental Coordinator
California Department of Parks & Recreation
Colorado Desert District
200 Palm Canyon Drive
Borrego Springs, CA 92004

Pursuant to Section 21082.1 of the California Environmental Quality Act, the California Department of Parks and Recreation (DPR) has independently reviewed and analyzed the Initial Study and Negative Declaration for the proposed project and finds that these documents reflect the independent judgment of DPR. DPR, as lead agency, also confirms that the project mitigation measures detailed in these documents are feasible and will be implemented as stated in the Negative Declaration.



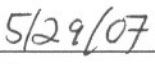
District Superintendent



Date



Environmental Coordinator



Date

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

The Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the California Department of Parks and Recreation (DPR) to evaluate the potential environmental effects of the proposed Vallecito Creek Watershed Rehabilitation Project at Anza-Borrego Desert State Park, San Diego County, California. This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 *et seq.*, and the State CEQA Guidelines, California Code of Regulations (CCR) §15000 *et seq.*

An Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment [CEQA Guidelines §15063(a)]. If there is substantial evidence that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared, in accordance with CEQA Guidelines §15064(a). However, if the lead agency determines that revisions in the project plans or proposals made by or agreed to by the applicant mitigate the potentially significant effects to a less-than-significant level, a Mitigated Negative Declaration may be prepared instead of an EIR [CEQA Guidelines §15070(b)]. The lead agency prepares a written statement describing the reasons a proposed project would not have a significant effect on the environment and, therefore, why an EIR need not be prepared. This IS/MND conforms to the content requirements under CEQA Guidelines §15071.

1.2 LEAD AGENCY

The lead agency is the public agency with primary approval authority over the proposed project. In accordance with CEQA Guidelines §15051(b)(1), "the lead agency will normally be an agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." The lead agency for the proposed project is DPR. The contact person for the lead agency is:

Pam Beare, Environmental Scientist
CA Dept. of Parks and Recreation
Colorado Desert District
200 Palm Canyon Drive
Borrego Springs, CA 92004
(760) 767-5748

All inquiries regarding environmental compliance for this project, including comments on this environmental document should be addressed to:

David Lawhead, District Environmental Coordinator

CA Dept. of Parks and Recreation
Colorado Desert District
200 Palm Canyon Drive
Borrego Springs, CA 92004
Fax: (760) 767-3427
e-mail: dlawhead@parks.ca.gov

1.3 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this document is to evaluate the potential environmental effects of the proposed Vallecito Creek Watershed Rehabilitation Project at Anza-Borrego Desert State Park. Mitigation measures have also been incorporated into the project to eliminate any potentially significant impacts or reduce them to a less-than-significant level.

This document is organized as follows:

- Chapter 1 - Introduction.
This chapter provides an introduction to the project and describes the purpose and organization of this document.
- Chapter 2 - Project Description.
This chapter describes the reasons for the project, scope of the project, and project objectives.
- Chapter 3 - Environmental Setting, Impacts, and Mitigation Measures.
This chapter identifies the significance of potential environmental impacts, explains the environmental setting for each environmental issue, and evaluates the potential impacts identified in the CEQA Environmental (Initial Study) Checklist. Mitigation measures are incorporated, where appropriate, to reduce potentially significant impacts to a less-than-significant level.
- Chapter 4 - Mandatory Findings of Significance
This chapter identifies and summarizes the overall significance of any potential impacts to natural and cultural resources, cumulative impacts, and impact to humans, as identified in the Initial Study.
- Chapter 5 - Summary of Mitigation Measures.
This chapter summarizes the mitigation measures incorporated into the project as a result of the Initial Study.
- Chapter 6 - References.
This chapter identifies the references and sources used in the preparation of this IS/MND. It also provides a list of those involved in the preparation of this document.
- Chapter 7 - Report Preparation

This chapter provides a list of those involved in the preparation of this document.

1.4 SUMMARY OF FINDINGS

Chapter 3 of this document contains the Environmental (Initial Study) Checklist that identifies the potential environmental impacts (by environmental issue) and a brief discussion of each impact resulting from implementation of the proposed project.

Based on the IS and supporting environmental analysis provided in this document, the proposed Vallecito Creek Watershed Rehabilitation Project would result in less-than-significant impacts for the following issues: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems.

In accordance with §15064(f) of the CEQA Guidelines, a MND shall be prepared if the proposed project will not have a significant effect on the environment after the inclusion of mitigation measures in the project. Based on the available project information and the environmental analysis presented in this document, there is no substantial evidence that, after the incorporation of mitigation measures, the proposed project would have a significant effect on the environment. It is proposed that a Mitigated Negative Declaration be adopted in accordance with the CEQA Guidelines.

CHAPTER 2

PROJECT DESCRIPTION

2.1 INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the California Department of Parks and Recreation (DPR) to evaluate the potential environmental effects of the proposed Vallecito Creek Watershed Rehabilitation Project at Anza-Borrego Desert State Park, located in San Diego County, California. The proposed project would remove all non-native tamarisk (*Tamarix* sp.) from two sections of the Vallecito Creek drainage-way, covering approximately 190 acres of desert riparian habitat. The goal is to restore the natural function of the desert riparian system in this region.

2.2 PROJECT LOCATION

The project is located in Anza-Borrego Desert State Park in San Diego County (Figure 1). The project site is located along Vallecito Creek, along County Road S2, approximately 18 miles east of Highway 78. The project will be conducted on two areas of the Vallecito Creek drainage, Campbell Grade and Vallecito Cienega, which are approximately 1.7 miles apart (Figure 2). This site was, previous to State Parks acquisition, a part of the private Vallecito Ranch property. A small portion of each treatment site is on adjacent Bureau of Land Management (BLM) property. The Vallecito Cienega site is located adjacent to San Diego County's Vallecito Regional Park.

2.3 BACKGROUND AND NEED FOR THE PROJECT

Recent land acquisitions along Vallecito Creek (a tributary of Carrizo Creek) at Campbell Grade and Vallecito Cienega have added significant desert riparian woodland habitat to Anza-Borrego Desert State Park (ABDSP). Now that most of the lands encompassing these two desert riparian areas are under public ownership (DPR and BLM), comprehensive restoration management is practical. Unfortunately, this valuable riparian habitat has significant amounts of non-native tamarisk, which degrade the quality of the native habitat. For over twenty years DPR has been conducting a successful exotic plant control program to improve the quality of desert riparian habitat within the watersheds of ABDSP. This project is a first-step towards rehabilitation of these two sites, and is an integral component of a larger park-wide program. DPR also coordinates with other public landowners in the desert region, such as the BLM, to work together to control tamarisk and other non-native invasive plants that threaten the natural desert ecosystem.

2.4 PROJECT OBJECTIVES

The overall goal is to improve the functional quality of native desert riparian habitat along this segment of Vallecito Creek. This includes the long-term improvement of the

habitat for all ecological elements which live in or are affected by these two areas. Specific objectives for this project include: 1) restore native biodiversity to the desert riparian habitat along Vallecito Creek, 2) enhance breeding habitat for the endangered least Bell's vireo, 3) increase surface water currently used by tamarisk and make it available to native plant and wildlife species, and 4) provide access and surface water in Vallecito Creek to benefit the endangered Peninsular bighorn sheep (*Ovis canadensis*), which historically used Vallecito Creek.

2.5 PROJECT DESCRIPTION

The project is the removal of non-native tamarisk (*Tamarix* sp.) from two sections of the Vallecito Creek drainage, Campbell Grade and Vallecito Cienega, within Anza-Borrego Desert State Park, San Diego County. Two small areas of tamarisk invasion on immediately adjacent Bureau of Land Management property along Vallecito Creek will also be rehabilitated. The property on which the primary restoration will occur is a recent acquisition by DPR, and past private activities have resulted in tamarisk invasion. Tamarisk removal will be conducted on approximately 190 acres of creek drainage-way and adjacent uplands. All tamarisk removal will be done using hand tools and herbicide. Cut material will be left in the vicinity of the creek, but moved out of wetland areas. No vehicles will be entering the drainage area. Work will be conducted primarily between October 15 and March 14 to avoid impacts to the least Bell's vireo. A cultural resources monitor will be present during tamarisk removal operations to ensure avoidance of sensitive cultural resources. Refer to the Biological Resources Technical Report (Appendix B) for a complete description of the project.

2.6 PROJECT IMPLEMENTATION

The project will be implemented in two treatment phases and one long-term maintenance phase. Phase One is proposed to begin on October 1, 2007 with the goal of removing all tamarisk within the two treatment areas before March 15, 2008. Phase Two is proposed to begin on October 1, 2008, and involves retreatment (i.e., removal) of any tamarisk regrowth in the treatment areas before March 15, 2009. Phase Three will be long-term maintenance of the treated areas. Phases One and Two will be carried out by a DPR contractor, while Phase Three will be carried out each year, or as needed, by DPR staff.

2.7 VISITATION TO

ABDSP averages approximately 600,000 visitors per year, but the number in any one year may be significantly higher or lower due to winter rainfall which governs the bloom of desert wildflowers. In a good wildflower year visitation may reach 900,000. Eighty-five percent of park attendance is between November and April of each year, and approximately 76% of park visitation is day use. Approximately 75% of park visitation occurs in the northern half of ABDSP (ABDSP General Plan, 2005). Visitation to the project site is low to moderate. The Campbell Grade site gets the least visitation because of its remoteness from visitor facilities. The Vallecito Cienega site likely has a

low to moderate visitation rate because of the presence of the adjacent Vallecito Regional County Park. There are trails or old ranch roads in the vicinity, but none cross the treatment areas. The occasional hiker may access the sites, but mostly on a sporadic and/or seasonal basis. The proposed Vallecito Creek Rehabilitation Project is not expected to increase or decrease visitor use of the treated areas over exiting levels of use.

2.8 CONSISTENCY WITH LOCAL PLANS AND POLICIES

The project is consistent with the goals and objectives of the Anza-Borrego Desert State Park General Plan to remove exotic plants and to restore natural ecosystem functions. The project is also consistent with the Memorandum of Understanding between DPR, the BLM, and other public agency landowners/managers in the California desert region to coordinate and cooperate in control of non-native invasive plants, such as tamarisk (Memorandum of Understanding Regarding the Conservation and Management of the San Felipe, Fish, Vallecito, and Carrizo Creek Watersheds, San Diego & Imperial Counties, California. October 2004).

2.9 DISCRETIONARY APPROVALS

This project will require a California Department of Fish and Game Streambed Alteration Agreement (Fish and Game Code Section 1600).

2.10 RELATED PROJECTS

DPR is completing another Tamarisk removal project in the San Felipe Creek/Sentenac Cienega area of Anza-Borrego Desert State Park. Both that project and the proposed Vallecito Creek project are part of a park-wide program to control exotic invasive plant species that degrade the quality of park habitats. Both of these projects are expected to be a net environmental benefit to the park.

CHAPTER 3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1. Project Title: Vallecito Creek Watershed Rehabilitation Project
2. Lead Agency Name & Address: California Department of Parks and Recreation
3. Contact Person & Phone Number: David Lawhead, (760) 767-4315
4. Project Location: Anza-Borrego Desert State Park, San Diego County
5. Project Sponsor Name & Address: California Department of Parks and Recreation
Colorado Desert District
200 Palm Canyon Drive
Borrego Springs, CA 92004
6. General Plan Designation: The eastern-most portion of the Campbell Grade site is within designated State Wilderness, while the rest of the treatment areas are in un-designated DPR lands.
7. Zoning: NA
8. Description of Project: Removal of all tamarisk from two sections of Vallecito Creek in Anza-Borrego Desert State park, Campbell Grade and the Vallecito Cienega. Removal of non-native tamarisk will be completed using hand tools, and occur between October 1 and March 14 to avoid impacts to the endangered least Bell's vireo. Cut tamarisk will remain in the drainage, although moved out of wetland areas.
9. Surrounding Land Uses & Setting: Refer to Chapter 3 of this document (Section IX, Land Use Planning)
10. Approval Required from Other Public Agencies: Refer to Chapter 2, Section 2.9

1. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact", as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | <input checked="" type="checkbox"/> None |

DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment and a **NEGATIVE DECLARATION** will be prepared. ☐

I find that, although the original scope of the proposed project **COULD** have had a significant effect on the environment, there **WILL NOT** be a significant effect because revisions/mitigations to the project have been made by or agreed to by the applicant. A **MITIGATED NEGATIVE DECLARATION** will be prepared. ☒

I find that the proposed project **MAY** have a significant effect on the environment and an **ENVIRONMENTAL IMPACT REPORT** or its functional equivalent will be prepared. ☐

I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated impact" on the environment. However, at least one impact has been adequately analyzed in an earlier document, pursuant to applicable legal standards, and has been addressed by mitigation measures based on the earlier analysis, as described in the report's attachments. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the impacts not sufficiently addressed in previous documents. ☐

I find that, although the proposed project could have had a significant effect on the environment, because all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration, pursuant to applicable standards, and have been avoided or mitigated, pursuant to an earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, all impacts have been avoided or mitigated to a less-than-significant level and no further action is required. ☐

Environmental Coordinator

Date

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers, except "No Impact", that are adequately supported by the information sources cited. A "No Impact" answer is adequately supported if the referenced information sources show that the impact does not apply to the project being evaluated (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on general or project-specific factors (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must consider the whole of the project-related effects, both direct and indirect, including off-site, cumulative, construction, and operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether that impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate when there is sufficient evidence that a substantial or potentially substantial adverse change may occur in any of the physical conditions within the area affected by the project that cannot be mitigated below a level of significance. If there are one or more "Potentially Significant Impact" entries, an Environmental Impact Report (EIR) is required.
4. A "Mitigated Negative Declaration" (Negative Declaration: Less Than Significant with Mitigation Incorporated) applies where the incorporation of mitigation measures, prior to declaration of project approval, has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact with Mitigation." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR (including a General Plan) or Negative Declaration [CCR, Guidelines for the Implementation of CEQA, § 15063(c)(3)(D)]. References to an earlier analysis should:
 - a) Identify the earlier analysis and state where it is available for review.
 - b) Indicate which effects from the environmental checklist were adequately analyzed in the earlier document, pursuant to applicable legal standards, and whether these effects were adequately addressed by mitigation measures included in that analysis.
 - c) Describe the mitigation measures in this document that were incorporated or refined from the earlier document and indicate to what extent they address site-specific conditions for this project.
6. Lead agencies are encouraged to incorporate references to information sources for potential impacts into the checklist or appendix (e.g., general plans, zoning ordinances, biological assessments). Reference to a previously prepared or outside document should include an indication of the page or pages where the statement is substantiated.
7. A source list should be appended to this document. Sources used or individuals contacted should be listed in the source list and cited in the discussion.
8. Explanation(s) of each issue should identify:
 - a) the criteria or threshold, if any, used to evaluate the significance of the impact addressed by each question **and**
 - b) the mitigation measures, if any, prescribed to reduce the impact below the level of significance.

ENVIRONMENTAL ISSUES

I. AESTHETICS.

ENVIRONMENTAL SETTING

The project sites are located along two nearby sections of Vallecito Creek within a picturesque desert canyon and valley setting. Desert riparian vegetation within these two treatment sites supports varying densities of vegetation, some of which is non-native tamarisk. Tamarisk vegetation is often intermixed with native vegetation, but may also form nearly homogeneous stands in certain locations. With the exception of a few backcountry hikers, the vast majority of the public in the vicinity of the project sites would view the site while driving along County Road S2. However, the sites are located at some distance from the road, and there is some intervening topography and/or desert scrub vegetation that reduces the visibility of the sites to the public while it travels S2. Once tamarisk is removed, it is anticipated that native vegetation, both shrub and tree species, will become re-established in those areas from which tamarisk was removed.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

DISCUSSION

a)-c) There will be a temporary reduction in desert riparian vegetation density as a result of tamarisk removal operations. However, this will not be particularly noticeable by the public as they travel County Road S2, because of the distance from the road, and intervening vegetation and topography. Native desert riparian vegetation is expected to re-establish within tamarisk removal areas, increasing vegetation density.

II. AGRICULTURAL RESOURCES.

ENVIRONMENTAL SETTING

No agricultural resources would be impacted by this project. A small area between the Vallecito Cienega and County Road S2 was cultivated on the original Vallecito Ranch property before the land was acquired by DPR. However, this field proved low quality as agricultural land, and has remained fallow, and will likely return to a natural state over time.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT*:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
<ul style="list-style-type: none">In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997), prepared by the California Department of Conservation as an optional model for use in assessing impacts on agricultural and farmland.				

a-c) although portions of this property have historically been used for agriculture, no active agriculture has been present since the State Parks acquisition. Additionally, the land will not be developed, therefore, no agricultural lands would be converted to non-agricultural uses by this project.

III. AIR QUALITY.

ENVIRONMENTAL SETTING

The western portion of Anza-Borrego Desert State Park is within the San Diego Air Basin, while the eastern part of the park is within the Salton Sea Air Basin. These air basins have varying levels of attainment or non-attainment for criteria pollutants. Because of its more easterly location within the park, the project area is likely more affected by air quality conditions within the Salton Sea Air Basin. The Salton Sea Air Basin is in non-attainment for particulate matter, primarily due to agricultural operations and wind-borne dust. Because of its protected location and distance from major urban pollution sources, the park often has good air quality and would not necessarily be characteristic of either air basin. However, air pollution in the form of smog, chemical fumes, smoke, and particulate

matter is evident on occasion. Many of these pollutants are carried into the park from outside sources (*Anza-Borrego Desert State Park General Plan, 2005*).

There is a small amount of air pollution that is generated within the boundaries of the park. Highway-legal vehicles operating on the 500 plus miles of highways and primitive roads in the park produce exhaust emissions and contribute to the air-borne particulate matter. Currently, no agency actively monitors the air quality within the park.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT*:				
a) Conflict with or obstruct implementation of the applicable air quality plan or regulation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Expose sensitive receptors to substantial pollutant concentrations (e.g., children, the elderly, individuals with compromised respiratory or immune systems)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

* Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make these determinations.

DISCUSSION

a-e) The sources of air-borne pollution expected from this project are exhaust from vehicles traveling to and from the treatment sites, and exhaust from gasoline-powered chainsaws used to cut down tamarisk. Both sources of pollutants are expected to be an incrementally small temporary addition to air-borne pollutants already in the park. Any pollutants would be dispersed from the treatment areas quickly given existing wind patterns in the area. Given the remote distance of the project sites from population centers, sensitive receptors would not be exposed to air-borne pollutants. No impacts to air quality are expected from this project.

IV. BIOLOGICAL RESOURCES.

ENVIRONMENTAL SETTING

Vallecito Creek is a tributary within the Carrizo Creek watershed, which encompasses a large portion of the southern end of Anza-Borrego Desert State Park. Vallecito Creek is dominated by desert riparian and mesquite bosque habitat. In narrow canyons the stream is confined to a

narrow corridor, but spreads out into wide expanses in broad alluvial valleys. The Campbell Grade treatment area is an example of the former condition, being confined to a narrow stream-way, while the Vallecito Cienega treatment area represents the latter condition of a broad alluvial drainage-way, with little surface water. Because of past land uses and water diversions, these sections of Vallecito Creek have become significantly degraded because of the extensive invasion of tamarisk (*Tamarix* sp.). Despite this exotic plant invasion, the stream system still retains significant, if degraded, native biodiversity, including the presence of nesting least Bell's vireo (*Vireo bellii pusillus*), a federal and state-listed endangered species. Historically, the federal-endangered peninsular bighorn sheep was known to utilize the area. However, for many years this species has not been found in the area, primarily due to loss of access to the water sources in Vallecito Creek due to man-made water diversions, the presence of cattle, and the increased density of stream vegetation due to the expansion of tamarisk. The restoration of the creek is anticipated to allow bighorn sheep to again utilize this part of the park. Vallecito Creek is also an important wildlife corridor between the Sawtooth Mountains and the Vallecito Mountains. Finally, the removal of tamarisk from this headwaters area of the larger Carrizo Creek watershed will eliminate a source of additional infestation downstream in the watershed. Refer to the Biological Resources Technical Report for a more detailed description of the project site (Appendix B).

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a sensitive, candidate, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands, as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? ☐ ☐ ☐ ☒

DISCUSSION

- a) The removal of tamarisk would occur in habitat that supports breeding least Bell's vireo, a federal and state-endangered species. This migratory species is typically present between March 15th and September 30th of each year. The number of vireo breeding pairs at Campbell Grade averages 11 (range 9 to 18), and at Vallecito Cienega averages 12 (range 5 to 33) (Paul Jorgensen, DPR Environmental Scientist, personal communication, 2007). The presence of workers in the desert riparian habitat to remove tamarisk could be a significant impact if it occurs during the breeding season. Loss of tamarisk within the riparian habitat could, in the short-term, reduce possible nesting areas for vireos, but the long-term restoration of the natural habitat and increase in biodiversity should be a net benefit to the vireo. Refer to the Biological Resources Technical Report for more details regarding breeding least Bell's vireos, possible impacts, and mitigation measures. Because the federally-endangered Peninsular bighorn sheep is not currently occupying the treatment sites, no impacts to this species are anticipated. The project is expected to be a long-term benefit to this species by restoring an historic water source, and reducing the density of vegetation in Vallecito Creek, thus allowing greater ease of movement between the Vallecito Mountains and the Sawtooth Mountains.
- b) The project is expected to restore the natural functions of the desert riparian habitat in Vallecito Creek, and enhance native biodiversity.
- c) The project is expected to be a long-term enhancement of the native desert riparian system in Vallecito Creek.
- d) The project is expected to enhance wildlife corridor movement through the creek by reducing the density of vegetation to a more natural level.

MITIGATION MEASURE BIO-1

- Tamarisk removal will occur between October 1st and March 14th to avoid the breeding season of the least Bell's vireo, as well as other breeding birds that may utilize the desert riparian habitat. After initial treatment, if it is deemed important to the success of the rehabilitation that follow-up removal of untreated tamarisk be carried out after March 14th, surveys will be conducted to confirm that no breeding birds are nesting within the treatment area. If breeding birds are utilizing the proposed treatment area, treatment will be delayed until nesting activities have been completed.

MITIGATION MEASURE BIO-2

- All vehicles traveling to the treatment locations will access the site only on existing dirt roads. All staging of equipment or location of portable toilets will be confined to existing dirt roads or disturbed areas. No vehicles will enter the desert riparian habitat.

MITIGATION MEASURE BIO-3

- Access to the specific treatment sites will be on foot. Trails from the staging areas to the work sites will be planned with DPR personnel to minimize disturbance to the native vegetation, and any necessary trails created by trimming native vegetation will be the minimum width (single person) to safely allow access.

MITIGATION MEASURE BIO-4

- While leaf litter and duff will be raked from around tamarisk trees to allow for appropriate cutting and herbicide treatment, no soil disturbance will occur during treatment.

MITIGATION MEASURE BIO-5

- Cut tamarisk will be left in the treatment areas, which will reduce or eliminate damage to the desert riparian habitat that could occur from dragging or use of heavy equipment if cut materials were removed, and should also provide some additional cover for certain wildlife species. Cut material will be moved by hand out of any wetland areas to avoid compromising water quality.

MITIGATION MEASURE BIO-6

- Any cut tamarisk that is moved will not be deposited in areas that may act as potential movement corridors or trails for Peninsular bighorn sheep.

MITIGATION MEASURE BIO-7

- Only experienced personnel with a current California Qualified Applicators License, with certification in the "Aquatic" category, will conduct the tamarisk removal.

MITIGATION MEASURE BIO-8

- Herbicides will not be applied in winds above 4 mph, and Garlon 4 will not be used in temperatures above 94°F to avoid accidental adverse effects on adjacent native plants.

MITIGATION MEASURE BIO-9

- Water from Vallecito Creek will not be used for any purpose related to this project. No herbicide mixing, loading, or cleanup shall occur within the stream zone.

V. CULTURAL RESOURCES.

ENVIRONMENTAL SETTING

A complete and systematic survey of the project area and surrounding lands has not been completed, although the results of numerous partial surveys and records were consulted to assess the existing cultural resources present. It is unlikely that a complete survey would be possible at this time within the actual project treatment areas due to the high density of tamarisk, mesquite, and other plant species.

The records check revealed the presence of 41 recorded cultural resource locations, both prehistoric and historic, within and immediately adjacent to the Vallecito Creek project area. Ten prehistoric sites are located within or immediately adjacent to the project rehabilitation area. Three of these sites likely have burial areas associated. Major occupation areas include SDM-C-165, recorded in the Vallecito State Station area of the cienega (County of San Diego parkland), and containing remains of the prehistoric village as well as historic materials associated with the occupation of the nearby sod-block stage station. Cremation remains have been recorded and observed at a major site, SDI-6873, located partially on Bureau of Land Management land but immediately adjacent to the rehabilitation area. A field comparison of photographs of Roger's excavations for the San Diego Museum of Man in the 1930s indicated that they were taken in the SDI-6873 area. A major occupation area, SDI-993, is recorded immediately adjacent to one of the project access roads. Site C-382 (a prehistoric occupation area) is recorded in the "El Puerto" Mason Valley portion of the project area. Unfortunately, little of this archeological work was completed in a systematic fashion, and resource details and precise location data are often lacking. As evidenced by his notes and photographs, Ed Davis excavated cremation pots and artifacts from Vallecito Valley in the early twentieth century. It is rumored that throughout the twentieth century the Campbells and later nearby ranch occupants collected artifacts from nearby archeological sites. The Vallecito and Mason Valleys are considered sensitive to Kumeyaay and Kwaaymii Indians living in the region today.

Significant historic sites are also located in direct proximity or within the project area. These sites include the Vallecito Stage Station/Lassiter Ranch (SDI-109), the Mason homestead and 1860s rock graffiti panels (SDM-C-381), the Campbell Ranch house and outbuildings (P-37-28,207 through 28,210), the Campbell flume, the Bailey cabin (P-37-28,213), and other outlying features (P-37-28,2011 through 28,212).

Significance of Cultural Resources

The Campbell Ranch is a potentially significant historic district associated with early cattle ranching in the Mason and Vallecito Valleys since 1916. The Bailey cabin is the ruins of a unique rammed earth constructed homestead residence. The Mason home site is associated with a nineteenth century homestead and the Mason Valley's namesake. The Fages/De Anza-Southern Emigrant Road includes portions of trails originally used by local Indians, late wagons, and now in part by automobiles or footpaths. The route is associated with a number of historic personages and events, including: 1) Lt. Pedro Fages (1772 and 1782); 2) Lt. Col. Juan Bautista de Anza (1774-1775 and 1775-1776); 3) Lt. Santiago Arguello (1824-1848); 4) Gen. Stephen Watts Kearny/Kitt Carson (1846); 5) Mormon Battalion (1847); 6) U.S.-Mexico

International Boundary Commission (1849); 7) Mexican and Anglo-American gold-seekers (1949-1861); 9) San Antonio and San Diego Mail Line (1857-1861); and 10) Butterfield Overland Stage Coach (1858-1861).

It is likely that the prehistoric resources located in the Vallecito and Mason Valley areas are eligible for the National Register as Districts.

Integrity

The integrity of the historic resources within the project area ranges from poor to fair. The Campbell Ranch complex contains structures that are in poor repair and deteriorating. However, the ranch's overall layout, including the barn, outbuildings, water conveyance system, fields, windmills, troughs, and other outlying features remain intact. The Bailey cabin is also deteriorating. A recently constructed protective shelter protects the rammed earth walls of the structure from the elements. The Mason homestead is a historic/archeological site, and displays evidence of pot-hunting. However, the site, and nearby 1860s-era graffiti, retain their historic setting and location. The integrity of the historic Fages/De Anza trail-Southern Emigrant Road varies. While some sections have been paved over by the present highway, there are surviving unpaved sections located along tool-worked rock-walled washes and arroyos. One section of the unpaved trail can be seen from the Campbell Grade's eastern overlook.

Although the archeological sites have suffered significant depredation from looters, these sites are still important for their archeological and cultural values. Importantly, the Native American sites are still important to local Indian people as traditional cultural properties as well as cemetery locations.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Cause a substantial adverse change in the significance of a historical resource, as defined in §15064.5?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource, pursuant to §15064.5?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

a-c) There is the potential that the work of removing tamarisk from the Campbell Grade and Vallecito Cienega treatment sites could impact historical or archeological resources in the area. The impacts could be in the form of ground disturbances during the course of tree

removal, the removal of artifacts from the treatment sites by contractors, or the inadvertent disturbance of new cultural sites exposed once vegetation is removed. However, potential impacts to these resources, including possible human burial sites, will be avoided through the implementation of the mitigation measures listed below. These mitigation measures should reduce any impacts to below a level of significance.

MITIGATION MEASURE CULT-1

- | |
|---|
| <ul style="list-style-type: none"> ▪ Vehicle access to the treatment sites will be confined to existing roads. All staging of equipment and portable toilet facilities will also be confined to dirt roads or already disturbed locations. |
|---|

MITIGATION MEASURE CULT-2

- | |
|---|
| <ul style="list-style-type: none"> ▪ No ground disturbance activities will be used to remove tamarisk . All trees will be cut at ground level, with herbicide-treated root stumps left in place. |
|---|

MITIGATION MEASURE CULT-3

- | |
|--|
| <ul style="list-style-type: none"> ▪ A qualified cultural resources monitor(s) will be on-site throughout the course of the tamarisk removal project to assure that no ground disturbances occur, that no collection of artifacts occurs by contractors, that cultural sites are avoided in planning foot access routes to the various work-sites, and that treated areas are surveyed for cultural resources to delimit and record any new sites that are exposed. |
|--|

MITIGATION MEASURE CULT-4

- | |
|--|
| <ul style="list-style-type: none"> ▪ If any evidence of human remains are detected the project will immediately stop work in the immediate area. DPR, Colorado Desert District, will abide by the conditions and protocols listed in the Memorandum of Agreement (June 10, 2006) (see Appendix C) for compliance with California Health and Safety Code Section 7050.5 for obtaining expert identification of possible human remains. The final disposition of any human remains will also be in accordance with the MOA. The project will continue once the appropriate disposition of any human remains is completed. |
|--|

VI. GEOLOGY AND SOILS.

ENVIRONMENTAL SETTING

The Campbell Grade portion of Vallecito Creek travels through steep rocky terrain. The soil type is Acid Igneous Rock. The Vallecito Cienega is located in a broad relatively flat alluvial valley and the soil type is dominated by Indio Silt Loam, which is moderately saline.

WOULD THE PROJECT:	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area, or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Be located on a geologic unit or soil that is unstable, or that would become unstable, as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems, where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
f) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

DISCUSSION

No impacts to geological resources are anticipated, as no soil disturbance is expected with this project. Tree root systems will be left in place, which should continue to stabilize the soils in the treatment areas.

VII. HAZARDS AND HAZARDOUS MATERIALS.

ENVIRONMENTAL SETTING

No hazardous materials are known from the sections of Vallecito Creek proposed for treatment. No hazards to the public are anticipated. Limited use of herbicides will occur to kill tamarisk, but due to the relatively remote nature of the work sites, exposure of the public to herbicides is not expected. Herbicides will be applied only by licensed operators, and according to manufacturer recommended protocols. Herbicides to be used are biodegradable and will not persist in the environment long-term. No herbicide mixing, loading, or cleanup will occur in the stream zone.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials, substances, or waste into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Be located on a site which is included on a list of hazardous materials sites, compiled pursuant to Government Code §65962.5, and, as a result, create a significant hazard to the public or environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport? If so, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
f) Be located in the vicinity of a private airstrip? If so, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
h) Expose people or structures to a significant risk of loss, injury, or death from wildland fires, including areas where wildlands are adjacent to urbanized areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

or where residences are intermixed with wildlands?

DISCUSSION

- a-h) The project is not expected to create a hazardous condition for the public, or expose the public or environment to hazardous materials. All manufacturer-recommended handling protocols will be followed for the application of herbicide.

VIII. HYDROLOGY AND WATER QUALITY.

ENVIRONMENTAL SETTING

Vallecito Creek is a desert hydrologic system where surface water and groundwater both play a role in sustaining the desert riparian vegetation within the creek. In steep canyon portions of the creek, where bedrock is often at or near the surface, surface water may be present in pools year-round. In valley bottoms where there is a significant depth of alluvial sandy soil deposits water may be at the surface, but is more likely present in shallow groundwater deposits. Most of the year water flow within the creek is low. However, during major summer or winter rainstorm events, substantial volumes of water can flow in short periods down the creek. These high water flows can cause significant changes in the location of the stream channel due to erosion. The impacts to riparian-associated vegetation can also be dramatic during high water flow events, and scour out areas of vegetation. Debris flow down the creek can also be significant during heavy rain events, which can alter vegetation, and at times the location of the stream channel. Scour events in the stream channel provide an opportunity for native seedlings to germinate and re-establish the desert riparian community, but it also gives an opportunity for non-native species such as tamarisk to get established.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

or siltation?

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| d) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| f) Substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| h) Place structures that would impede or redirect flood flows within a 100-year flood hazard area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| i) Expose people or structures to a significant risk of loss, injury, or death from flooding, including flooding resulting from the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| j) Result in inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |

DISCUSSION

The proposed project is not expected to significantly alter the hydrologic processes of Vallecito Creek. No alteration to the existing stream channel will occur. Native vegetation will remain intact, which should provide a significant guard against higher than normal erosion. Dead tamarisk will remain in the creek drainage, but be removed a minimum of 30 feet from wetland areas or the existing stream channel. In addition, the root systems of cut tamarisk trees will remain in tact within the riparian areas, providing stability to the soils. All herbicides to be used are biodegradable, and only those approved for use around water will be used when water is present in the treatment areas. The project will acquire a Streambed Alteration Agreement from the California Department of Fish and Game, and DPR will employ Best Management Practices in working within wetland areas.

IX. LAND USE AND PLANNING.

ENVIRONMENTAL SETTING

No major community exists in the vicinity of the Vallecito Creek treatment areas. The surrounding lands, including DPR, County of San Diego, or private are focused on various forms of public recreation. The private Butterfield Ranch Recreational Vehicle Park is located approximately 2 miles west of the Campbell Grade treatment site. San Diego County-owned Vallecito Regional Park abuts the Vallecito Cienega treatment site to the north, and the County-owned Agua Caliente Regional Park is located approximately 11.2 miles to the east of Vallecito Cienega along S2. A small number of private residences exist in Mason Valley approximately 3 miles to the west along S2.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
b) Conflict with the applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

DISCUSSION

a-c) The proposed project would have no impacts to existing land uses or regional conservation plans.

X. MINERAL RESOURCES.

ENVIRONMENTAL SETTING

Both project treatment sites are located within Anza-Borrego Desert State Park, where mineral extraction is not allowed. A portion of the Campbell Grade treatment area is also included within designated State Wilderness lands. No known significant mineral resources are located within the treatment areas.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Result in the loss of availability of a known mineral resource that is or would be of value to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

the region and the residents of the state?

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|---|
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
|--|--------------------------|--------------------------|--------------------------|---|

DISCUSSION

a-b) Mineral extraction is not permitted within Anza-Borrego Desert State Park, and the proposed project would not change that land use constraint. No known significant mineral resources would be impacted by this project.

XI. NOISE.

ENVIRONMENTAL SETTING

Because of the remote nature of the project area there are few noise sources normally present. The primary source of noise is vehicle travel along County Road S2. The level of traffic along this road is typically low, however, sound can travel long distances within the desert environment. The project treatment sites are somewhat removed from the road, and in some areas partially shielded from direct contact with the road because of intervening topography and/or vegetation, which may reduce noise levels somewhat in these areas.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Generate or expose people to noise levels in excess of standards established in a local general plan or noise ordinance, or in other applicable local, state, or federal standards?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Generate or expose people to excessive groundborne vibrations or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Create a substantial permanent increase in ambient noise levels in the vicinity of the project (above levels without the project)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Create a substantial temporary or periodic increase in ambient noise levels in the vicinity of the project, in excess of noise levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport? If so, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
f) Be in the vicinity of a private airstrip? If so, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

DISCUSSION

- a) The primary noise-generating source for the project will be the use of chainsaws to cut tamarisk within the treatment areas. Noise levels from a gas-powered chainsaw may reach up to 70-80 dBA up to 50-100 feet away. However, with the exception of a small portion of the Vallecito Cienega treatment site which abuts the Vallecito Regional Park (San Diego County), all of the treatment areas are removed from areas where the public would be routinely exposed to the noise. There may be brief temporary impacts to campers at the Vallecito Regional Park during daylight hours, but noise would be attenuated by distance and intervening vegetation, so that no significant impacts would occur.
- d) The use of chain saws would be a short-term temporary increase in the ambient noise levels in the project area. In all but one small area, the noise would be sufficiently removed from public areas to not be noticeable to the public driving by on County Road S2. The temporary impact of noise upon campers/visitors using Vallecito Regional Park may be noticeable, but the short duration and partial attenuation of the noise by vegetation would make the impact less than significant. The use of chainsaws will be limited to daylight hours only. The temporary increase in noise will have no impact upon the least Bell's vireo, since chainsaws will not be in use while this bird is present.

XII. POPULATION AND HOUSING

ENVIRONMENTAL SETTING

The nearest small community is located in Mason Valley, approximately 3 miles to the west of the Campbell Grade site. This is a small isolated desert community of less than 100 people. The nearby County parks also have small communities of people using the recreational facilities at these locations on a seasonal basis.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

DISCUSSION

- a) This project would have no impact on local population growth.
- b) No housing would be displaced by this project.
- c) No people would be displaced by this project.

XIII. PUBLIC SERVICES.

ENVIRONMENTAL SETTING

The Vallecito Creek tamarisk treatment sites are used for public recreation of a passive nature, mainly hiking, birdwatching, and occasionally camping. The project's goal is to restore Vallecito Creek to its original natural state by removing exotic tamarisk, thus restoring a portion of its recreational value.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Result in significant environmental impacts from construction associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

DISCUSSION

- a) No public services would be compromised by this project. The goal of the project is to enhance the public recreation service at Anza-Borrego Desert State Park by restoring disturbed habitats to their natural state for public enjoyment and education. DPR is committing to the on-going maintenance of the vegetation on the treatment sites after this initial project is completed to ensure that tamarisk does not get re-established in the creek. ABDSP has an existing work crew that surveys and maintains other similar treated habitats, and the project sites will be overseen by this crew in the future.

XIV. RECREATION.

ENVIRONMENTAL SETTING

Vallecito Creek provides recreational opportunities in the form of camping, hiking, birdwatching, and other passive outdoor activities. Public use is relatively low given the remoteness of the area. However, two nearby County Park campgrounds draw some people to the area that may also may make use of adjacent Anza-Borrego Desert State Park lands for recreational pursuits, including Vallecito Creek. Recreational activities in this area are typically seasonal, with most visitation during the cooler winter and spring months.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

DISCUSSION

- a) This project will not increase the use of existing nearby park/recreation facilities.
- b) This project will not include the creation or expansion of recreational facilities.

XV. TRANSPORTATION/TRAFFIC.

ENVIRONMENTAL SETTING

The two treatment sites in the Vallecito Creek watershed are located in close proximity to County Road S2. This road is a major route through Anza-Borrego Desert State Park. Traffic volumes are typically not high, with the greater amount of traffic occurring in the cooler winter and spring months. Traffic volume can increase substantially if plentiful winter rains produce a significant bloom of wildflowers which attracts large numbers of tourists.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Cause a substantial increase in traffic, in relation to existing traffic and the capacity of the street system (i.e., a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Exceed, individually or cumulatively, the level of service standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Cause a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Contain a design feature (e.g., sharp curves or a dangerous intersection) or incompatible uses (e.g., farm equipment) that would substantially increase hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

DISCUSSION

- a) The project will require transport of contract and DPR personnel to the treatment sites along exiting roadways, including County Road S2. However, this will only be a temporary increase during the time the project is carried out, and the increase in traffic would not be significant.
- b) Service standards for designated roads or highways will not be exceeded.
- c) This project will have no impact upon air traffic patterns

- d) This project will not alter roads or roadway conditions.
- e) Emergency access will not be impacted by this project.
- f) This project will not affect parking capacity.
- g) This project will not affect policies or programs regarding alternative transportation.

XVI. UTILITIES AND SERVICE SYSTEMS.

ENVIRONMENTAL SETTING

No utilities or service systems within Anza-Borrego Desert State Park along Vallecito Creek would be affected by this project, and no services exist in the treatment areas. Nearby County Parks do have access to water and electricity.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Exceed wastewater treatment restrictions or standards of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Would the construction of these facilities cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Would the construction of these facilities cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Result in a determination, by the wastewater treatment provider that serves or may serve the project, that it has adequate capacity to service the project's anticipated demand, in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
g) Comply with federal, state, and local statutes and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

regulations as they relate to solid waste?

DISCUSSION

a-g) This project would not construct or impact public or private utilities or services.

CHAPTER 4 MANDATORY FINDINGS OF SIGNIFICANCE

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
b) Have the potential to eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
c) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means the incremental effects of a project are considerable when viewed in connection with the effects of past projects, other current projects, and probably future projects?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Have environmental effects that will cause substantial adverse effects on humans, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

DISCUSSION

a) The project, if carried out during the least Bell's vireo breeding season (March 15-September 30), could have a significant impact to this federal and state-endangered species, which breeds in both Campbell Grade and Vallecito Cienega. The project proposes to confine initial tamarisk treatment to the non-breeding season (October 1-March 14). Follow-up treatment will also be conducted primarily during the non-breeding season. However, if very limited follow-up treatment is deemed necessary during the breeding season it will only be carried out after field surveys by DPR staff confirm that no breeding vireos are present. The project is expected to be a long-term net benefit to the vireo population, and wildlife in general, in Vallecito Creek by removing exotic plants and restoring natural habitat function and biodiversity.

- b) The project will occur within a landscape that supports a number of sensitive historic and prehistoric sites. A thorough survey for cultural resources is not feasible in some of the proposed treatment areas because the high density of vegetation, especially tamarisk, makes access very difficult. Therefore, without proper mitigation, the project could cause significant impacts to cultural resources. The mitigation measures this project proposes would reduce the potential impacts to level below significance. Those measures include: 1) no ground disturbance; 2) all vehicles and staging areas confined to existing roads and disturbed areas outside of the treatment areas; and 3) the presence of a cultural resources monitor(s) during the period of treatment to direct workers to avoid sensitive areas and to document/protect any new cultural resources discovered.
- c) No significant cumulative impacts are anticipated from this project. The tamarisk removal is expected to be a long-term benefit to the desert riparian ecosystem, and to the species dependent upon it.
- d) No substantial adverse impacts to humans would occur.

CHAPTER 5

SUMMARY OF MITIGATION MEASURES

The following mitigation measures would be implemented by DPR as part of the Vallecito Creek Watershed Rehabilitation Project.

AESTHETICS - NA

-

AGRICULTURAL RESOURCES - NA

-

AIR QUALITY - NA

-

BIOLOGICAL RESOURCES

-

MITIGATION MEASURE BIO-1

- | |
|---|
| <ul style="list-style-type: none">▪ Tamarisk removal will occur between October 1st and March 14th to avoid the breeding season of the least Bell's vireo, as well as other breeding birds that may utilize the desert riparian habitat. After initial treatment, if it is deemed important to the success of the rehabilitation that follow-up removal of untreated tamarisk be carried out after March 14th, surveys will be conducted to confirm that no breeding birds are nesting within the treatment area. If breeding birds are utilizing the proposed treatment area, treatment will be delayed until nesting activities have been completed. |
|---|

MITIGATION MEASURE BIO-2

- | |
|--|
| <ul style="list-style-type: none">▪ All vehicles traveling to the treatment locations will access the site only on existing dirt roads. All staging of equipment or location of portable toilets will be confined to existing dirt roads or disturbed areas. No vehicles will enter the desert riparian habitat. |
|--|

MITIGATION MEASURE BIO-3

- | |
|---|
| <ul style="list-style-type: none">▪ Access to the specific treatment sites will be on foot. Trails from the staging areas to the work sites will be planned with DPR personnel to minimize disturbance to the native vegetation, and any necessary trails created by trimming native vegetation will be the minimum width (single person) to safely allow access. |
|---|

MITIGATION MEASURE BIO-4

- | |
|--|
| <ul style="list-style-type: none">▪ While leaf litter and duff will be raked from around tamarisk trees to allow for appropriate cutting and herbicide treatment, no soil disturbance will occur during treatment. |
|--|

MITIGATION MEASURE BIO-5

- Cut tamarisk will be left in the treatment areas, which will reduce or eliminate damage to the desert riparian habitat that could occur from dragging or use of heavy equipment if the cut materials were removed, and should also provide some additional cover for certain wildlife species. Cut material will be moved by hand out of any wetland areas to avoid compromising water quality.

MITIGATION MEASURE BIO-6

- Any cut tamarisk that is moved will not be deposited in areas that may act as movement corridors or trails for Peninsular bighorn sheep.

MITIGATION MEASURE BIO-7

- Only experienced personnel with a current California Qualified Applicators License, with certification in the “Aquatic” category, will conduct the tamarisk removal.

MITIGATION MEASURE BIO-8

- Herbicides will not be applied in winds above 4 mph, and Garlon 4 will not be used in temperatures above 94°F to avoid accidental adverse effects on adjacent native plants.

MITIGATION MEASURE BIO-9

- Water from Vallecito Creek will not be used for any purpose related to this project. No herbicide mixing, loading, or cleanup shall occur within the stream zone.

CULTURAL RESOURCES

•

MITIGATION MEASURE CULT-1

- Vehicle access to the treatment sites will be confined to existing roads. All staging of equipment and portable toilet facilities will also be confined to dirt roads or already disturbed locations.

MITIGATION MEASURE CULT-2

- No ground disturbance activities will be used to remove tamarisk . All trees will be cut at ground level, with herbicide-treated root stumps left in place.

MITIGATION MEASURE CULT-3
<ul style="list-style-type: none">▪ A qualified cultural resources monitor(s) will be on-site throughout the course of the tamarisk removal project to assure that no ground disturbances occur, that no collection of artifacts occurs by contractors, that cultural sites are avoided in planning foot access routes to the various work-sites, and that treated areas are surveyed for cultural resources to delimit and record any new sites that are exposed.

MITIGATION MEASURE CULT-4
<ul style="list-style-type: none">▪ If any evidence of human remains are detected the project will immediately stop work in the immediate area. DPR, Colorado Desert District, will abide by the conditions and protocols listed in the Memorandum of Agreement (June 10, 2006) for compliance with California Health and Safety Code Section 7050.5 for obtaining expert identification of possible human remains. The final disposition of any human remains will also be in accordance with the MOA. The project will continue once the appropriate disposition of any human remains is completed.

GEOLOGY AND SOILS - NA

•

HAZARDS AND HAZARDOUS MATERIALS - NA

•

HYDROLOGY AND WATER QUALITY - NA

•

LAND USE AND PLANNING - NA

•

MINERAL RESOURCES - NA

•

NOISE - NA

•

POPULATION AND HOUSING - NA

•

PUBLIC SERVICES - NA

•

RECREATION - NA

•

TRANSPORTATION/TRAFFIC - NA

-

UTILITIES AND SERVICE SYSTEMS - NA

-

CHAPTER 6 REFERENCES

Air Quality

Anza-Borrego Desert State Park General Plan/EIR (2005)

Biological Resources

See Biological Technical Report – Appendix B

Cultural Resources

San Diego State University – South Coastal Information Center (SDSU-SCIC)

San Diego Museum of Man

State Parks Southern Service Center, San Diego, CA

Report Preparation

CALIFORNIA DEPARTMENT OF PARKS AND RECREATION

David Lawhead, Associate Park and Recreation Specialist

Pam Beare, Environmental Scientist

Paul Jorgensen, Environmental Scientist – retired

Sue Wade, Associate State Parks Archeologist

Alex Bevel, State Parks Historian

APPENDIX A
MAPS

Vallecito Creek Tamarisk Eradication

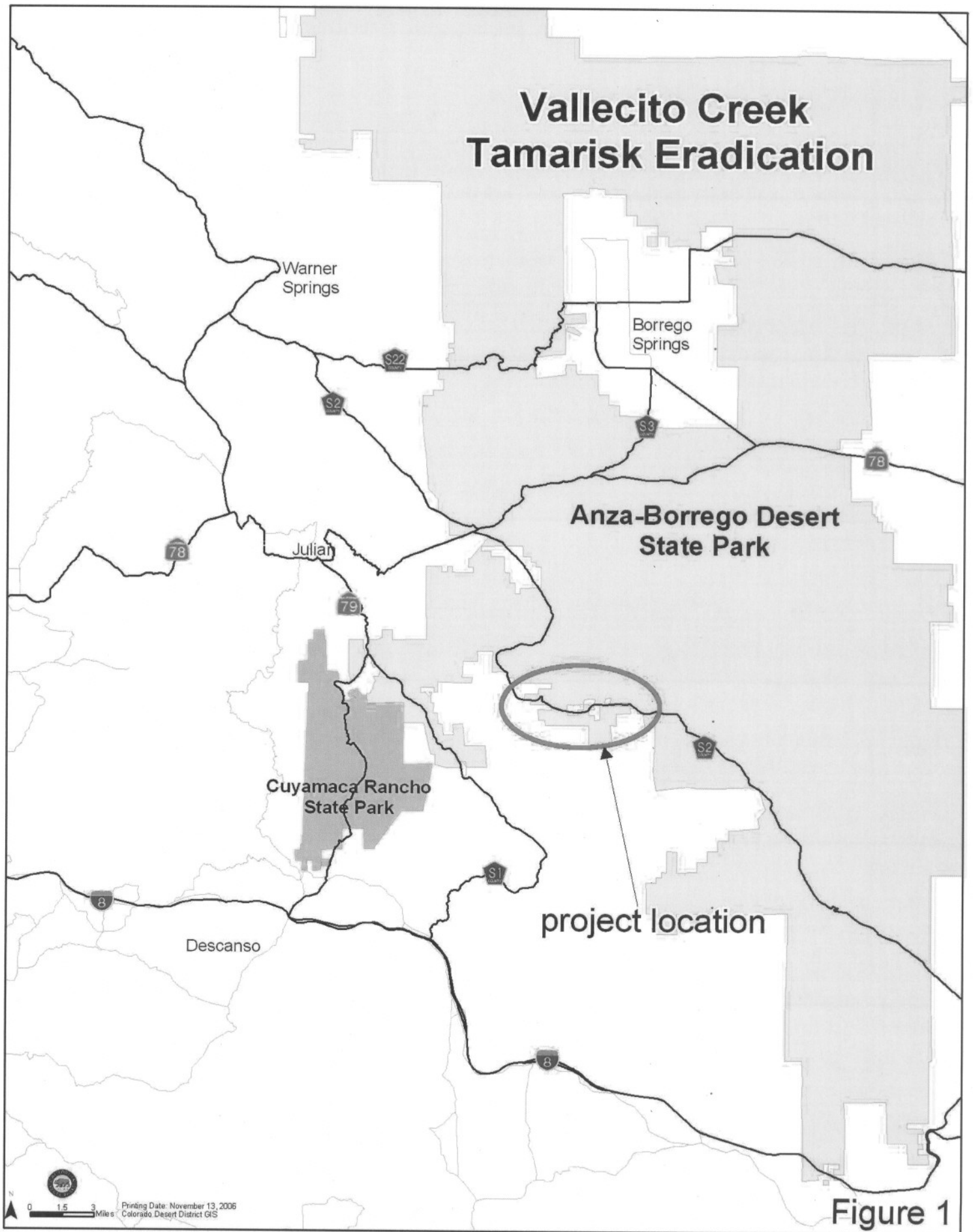
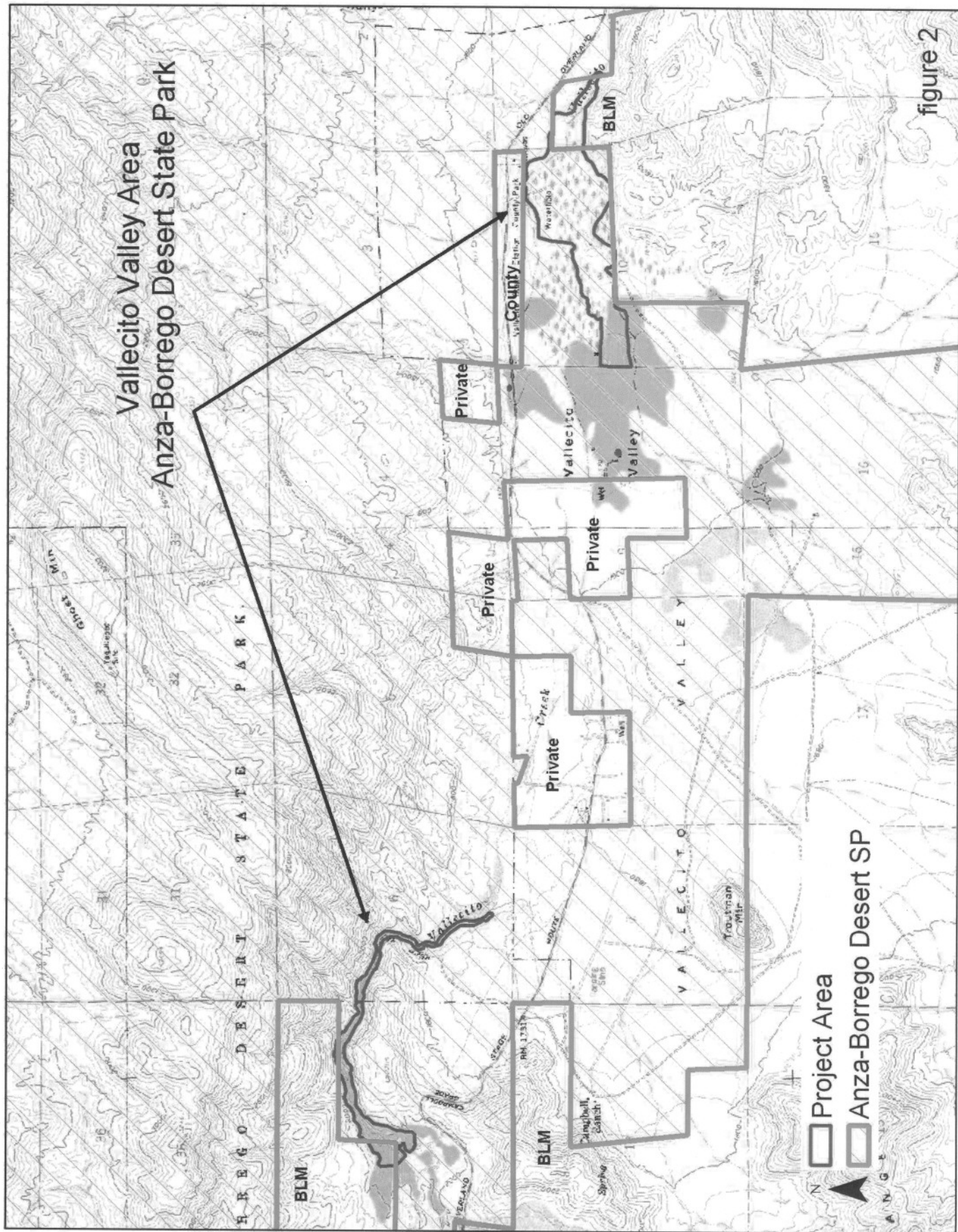


Figure 1



APPENDIX B

BIOLOGICAL RESOURCES TECHNICAL REPORT

**Biological Resources Technical Report
Vallecito Creek Tamarisk Eradication Project
Anza-Borrego Desert State Park**

Introduction

The California Department of Parks and Recreation (State Parks) recently acquired the Vallecito Ranch, located on County Route S2 in eastern San Diego County (Figure 1). This property includes Vallecito Cienega and a section of Vallecito Creek at Campbell Grade (Figures 2, 3 and 4), both of which currently support significant amounts of tamarisk (*Tamarix* sp.), an invasive non-native tree species. Tamarisk infestations typically result in reduction or loss of surface water, and decreased habitat quality. The overall goal of the project is to permanently remove tamarisk, thereby improving the functional quality of native riparian habitat along this segment of Vallecito Creek and Cienega. This includes the long-term improvement of the habitat for all ecological elements which live in or are affected by these two areas. Tamarisk clearing and the resulting improvement in surface water at both sites is expected to increase overall native plant diversity in this rare and diminishing habitat type. Two listed species, least Bell's vireo (*Vireo bellii pusillus*) and peninsular bighorn sheep (*Ovis canadensis*), may directly benefit from the habitat improvement. Previous tamarisk removal projects have shown that habitat quality for least Bell's vireo will be enhanced and an increase in nesting density can be expected. At Campbell Grade, use by bighorn sheep for watering has been prevented or seriously diminished for decades due to historical removal of stream flow via an aquaduct, which is no longer functional, and by the presence of excessively dense vegetation due to infestation by tamarisk. This project is expected to increase available surface water, improve physical access to water for bighorn, and improve overall habitat quality.

Project Description

The project has been developed using knowledge gained from several previous tamarisk removal projects within Anza Borrego Desert State Park (ABDSP), and includes the initial complete removal of tamarisk followed by regular maintenance to remove all forms of re-colonizing tamarisk. Planting natives following tamarisk removal is usually impractical and unnecessary. Natural revegetation is expected because there is approximately 75% cover of native species at the project sites and this should provide adequate propagules for recolonization.

All tamarisk within the project limits (Figures 2) will be killed by pulling (seedlings), foliar spraying, basal bark treatment or cutting at ground level and stump treating with herbicide. Only Rodeo and Garlon 4 (or their non-brand equivalent), along with an approved surfactant, will be used, and these will be applied by personnel with all appropriate training and licenses/certifications. The project includes the following features to avoid or minimize potential impacts to native plants and animals:

1. The initial tamarisk removal will occur from October 1 through March 14 to avoid potential impacts to nesting birds, particularly the endangered least Bell's vireo. Follow-up treatment of re-sprouts and seedlings within previously cleared areas will occur primarily between October 1 and March 14, but might be approved from March 15 to September 30, but only if surveys immediately preceding the work indicate that least Bell's vireo and other nesting birds will not be adversely affected by the work.
2. All tamarisk removal will be with hand-held tools, including chainsaws. And moving of cut tamarisk will also be done by hand. No vehicles will encroach into the desert riparian habitat
3. Proof of a current California Qualified Applicators License with certification in the Aquatic category will be required by those performing the work, as well as experience in both non-native plant control within native habitats and herbicide application in riparian or wetland sites.
4. Herbicides will not be applied in winds above 4 mph, and Garlon 4 will not be used in temperatures above 94°F to avoid accidental adverse effects on adjacent native plants.
5. Water from Vallecito Creek will not be used for any purpose related to this project. No herbicide mixing, loading or cleanup shall occur within the stream zone.
6. Access roads and staging areas will be restricted to existing roads and cleared areas. Only foot traffic (no vehicles) will be used beyond these areas. All equipment and vehicles brought to the site will be inspected and found to be weed-free prior to use on site. Chemical toilets will be provided for the work crews and will be located in areas that will not impact native species.
7. Cut tamarisk will be removed from wet areas and placed at least 30 feet away in nearby upland habitats to increase habitat complexity.

Methods

This report relies primarily on information from previous investigations at this locality and in the general vicinity, including Massey and Evans (1994), 20 years of least Bell's vireo surveys by State Parks, along with a field review by Paul Jorgensen, Larry Hendrickson and Pam Beare on January 10, 2007. Extensive additional surveys were not done because any adverse effects of the project are expected to be minimal at most. A search of the California Natural Diversity Database (CNDDB 2006) for the Agua Caliente Springs and Monument Peak Quadrangles was done to determine sensitive species that are known to occur in the vicinity. Botanical nomenclature follows Hickman (1993); plant community designations conform to Holland (1986); bird nomenclature follows the American Ornithologists' Union (1998); reptiles follow Lemm (2006); and mammals follow Jameson and Peeters (1988).

Existing Environmental Conditions

Environmental Setting

This portion of ABDSP is located in a transition zone at the eastern edge of the Peninsular Range and the western edge of the Colorado Desert. Elevations in the immediate vicinity of the project range from 2,000 feet at Campbell Grade to 1,440 feet at the downstream end of the cienega. Although annual rainfall only averages about 5 inches in the vicinity, heavier rainfall in the upper watershed can result in brief and infrequent, but sometimes extensive, flood events. The surrounding vegetation type is Sonoran mixed woody and succulent scrub, while within the project limits it consists of mesquite bosque and desert dry wash woodland (Figure 3). At Campbell Grade, about 45 acres will be subject to tamarisk control (Figure 5). The wider, western portion of this site is deeply down cut and entrenched, while to the east it narrows through a steep-walled, rocky canyon. The amount of surface water flow varies greatly, but normally consists of only a narrow stream of surface flow which usually doesn't extend beyond the canyon. Vallecito Cienega is a flat braided wash habitat and encompasses approximately 250 acres (Figure 4). Of that, the more densely vegetated 142 acres falls within the project site and will be subject to tamarisk control (Figure 5). Normally, surface water is limited to small seeps or wet areas since Vallecito Creek is underground through this section.

Vegetation

Within the project limits, mesquite bosque is the primary vegetation community type at both Campbell Grade and Vallecito Cienega. At Campbell Grade the dominant species include: honey mesquite (*Prosopis glandulosa* var. *torreyana*), tamarisk (*Tamarix ramosissima*), willow (*Salix* sp.), Olney's bulrush (*Schoenoplectus americanus*), and arrow weed (*Pluchea sericea*). At the cienega the dominant species include both honey and screwbean mesquite (*Prosopis pubescens*), plus two species of saltbush (*Atriplex lentiformis* and *A. polycarpa*), and tamarisk. Portions of the Campbell Grade site also include a desert dry wash woodland plant community with the following dominant species: desert willow (*Chilopsis linearis* ssp. *arcuata*), honey mesquite, cheesebush (*Ambrosia salsola* var. *salsola*) and catclaw acacia (*Acacia greggii*). Areas that crews will walk through between the staging areas and work sites consist of Sonoran mixed woody and succulent scrub. At Campbell Grade the dominant species in this community are creosote bush (*Larrea tridentata*), ocotillo (*Fouqueria splendens* ssp. *splendens*), burrobrush (*Ambrosia dumosa*), teddy bear cholla (*Cylindropuntia bigelovii*), Parish's goldeneye (*Bahiopsis parishii* [*Viguiera parishii*]), and jojoba (*Simmondsia chinensis*). The dominant species also includes Mason Valley cholla (*Cylindropuntia xfosbergii*), which is a hybrid, endemic to San Diego County, and designated as a species with Locally Limited Distribution by State Parks Colorado Desert District. At Vallecito Cienega this community is dominated by creosote bush, burrobrush, many-fruited saltbush, Gander's cholla (*Cylindropuntia ganderi* var. *ganderi*) and Engelmann's hedgehog cactus (*Echinocereus engelmannii*). A list of plant species that are known, or expected to occur within, or directly adjacent to, the project work area is found in Appendix A.

Wildlife

A list of wildlife species known or expected to occur within the project limits (or its immediate vicinity) is found in Appendix A. Many of the bird species on this list are only present seasonally, while the mammals, reptiles and amphibians are resident. Common species include southern mule deer, bobcat, ground squirrels, Audubon's cottontail, California quail, lesser goldfinch, phainopepla and verdin.

Sensitive Species

The CNDDDB contains records for fifteen sensitive animal species and 28 sensitive plant species in the two USGS Quadrangles that include the project sites (Appendix B). However, the Monument Peak Quad. includes portions of the adjacent mountains and many of the species on the list are found only at the higher elevations, well above the project. The majority of the remaining species are not expected on the project because of incompatible habitat conditions (vegetation community, substrate, etc.). Sensitive species that have been reported, or are expected, in the project vicinity are included in Table 1. Of these, the only species listed pursuant to the Federal Endangered Species Act and/or the California Endangered Species Act are least Bell's vireo, which is both state and federally listed as endangered and barefoot (Switak's) banded gecko, which is State-listed as threatened. Least Bell's vireo is a migratory species and is present at both work sites, but only during the nesting season, roughly March 15 through September 30. The number of breeding pairs detected at Campbell Grade averages 11 and ranges from 9 to 18. At Vallecito Cienega the number of pairs averages 12 and ranges from 5 to 33. Barefoot banded gecko inhabits rocky habitat, which is found adjacent, but not within the work areas. Although not present in CNDDDB, peninsular bighorn sheep, which is Federally-listed as endangered and State-listed as threatened, is known to inhabit the adjacent Vallecito Mountains. A key feature of the Campbell Grade site is that it has historically been an important watering source for bighorn. Steep terrain, which is preferred by bighorn, leads down to water on the north side of the creek. However, this species has not been able to use this water source to any degree for many years because the extremely dense vegetation prevents access, and water was diverted for human uses. This may be an important limiting factor to the Vallecito Mountain herd, which now depends on artificial water at constructed guzzlers. Bighorn have not been observed at the project site for a number of years, and are not expected during the tamarisk removal process. No listed plants are known or expected in the vicinity. The 16 sensitive, but non-listed, species also included in Table 1 have either been observed, or have the potential to occur within the project work area.

Wildlife Corridors

Vallecito Cienega is an important link between the Sawtooth Mountains and the Vallecito Mountains, especially for large mammals such as bighorn and mountain lion. This desert valley provides forage, water and cover amidst a relatively barren landscape.

Potential Jurisdictional Wetland Areas

The project will not result in the discharge of dredged or fill materials, therefore a jurisdictional determination pursuant to Section 404 of the Clean Water Act was not prepared. Portions of the project occur within the bed and banks of streambeds as applied

by the Department of Fish and Game (DFG) under their authority pursuant to Section 1600 *et seq.* of Fish and Game Code. This includes the majority of the project work area at Campbell Grade, where the creek, along with the tamarisk, is in a defined channel. At the cienega, where the topography within the project limits is very flat, there is neither defined bed nor banks. As with many mesquite bosque communities, the vegetation in this location is supported by shallow groundwater. Preliminarily it appears that this area would not be subject to DFG jurisdiction, but this will need to be determined in coordination with DFG.

Table 1. Sensitive species that have been observed, or may occur, in the project work area.

(* denotes those that have been observed)

<u>Scientific Name – Common Name</u>	<u>Status</u>
Plants:	
<i>Astragalus insularis</i> var. <i>harwoodii</i> – Harwood’s milk-vetch	CNPS 2.2
<i>Ayenia compacta</i> – California ayenia	CNPS 2.3
<i>Caulanthus simulans</i> – Payson’s jewelflower	CNPS 4.2
<i>Herissantia crisper</i> – curly herissantia	CNPS 2.3
<i>Horsfordia newberryi</i> – yellow feltplant	CNPS 4.3
<i>Lotus haydonii</i> – pygmy lotus	CNPS 1B.3
<i>Mentzelia hirsutissima</i> – hairy stickleaf	CNPS 2.3
<i>Cylindropuntia x fosbergii</i> – Mason Valley cholla	LLD
<i>Proboscidea althaeifolia</i> – desert unicorn-plant	CNPS 4.3
<i>Selaginella eremophila</i> – desert spikemoss	CNPS 2.2
<i>Senna covesii</i> – Coves’ cassia	CNPS 2.2
<i>Spermolepis echinata</i> – bristly scaleseed	CNPS 2.3
Wildlife:	
<i>Coleonyx switaki</i> – barefoot banded gecko	ST
<i>Crotalus ruber ruber</i> – northern red-diamond rattlesnake	SC
<i>Dendroica petechia brewsteri</i> – yellow warbler*	SC
<i>Icteria virens</i> – yellow-breasted chat*	SC
<i>Lanius ludovicianus</i> – loggerhead shrike*	SC
<i>Vireo bellii pusillus</i> – least Bell’s vireo*	FE, SE

CNPS = California Native Plant Society Inventory of Rare, Endangered and Threatened

Vascular Plant Species

List Code:

- 1A – Plants presumed extinct in California
- 1B – Plants rare, threatened, or endangered in California and elsewhere
- 2 – Plants rare, threatened, or endangered in California, but more common elsewhere
- 3 – Plants about which we need more information-a review list
- 4 – Plants of limited distribution-a watch list

Threat Code Extension:

- .1 – Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- .2 – Fairly endangered in California (20-80% occurrences threatened)
- .3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)

LLD = Colorado Desert District, Locally Limited Distribution plant species

FE = Species listed as endangered pursuant to the Endangered Species Act

SE = Species listed as endangered pursuant to the California Endangered Species Act

ST = Species listed as threatened pursuant to the California Endangered Species Act

SC = California Species of Special Concern

Impact Analysis

Vegetation, Wildlife and Sensitive Species

The project is designed and expected to have a long-term positive effect on the ecosystem as a whole. The removal of non-native tamarisk, which forms dense single-species thickets, will allow re-establishment of native species and result in a more heterogeneous vegetation community and greater habitat diversity. Based on previous tamarisk removal projects done within the park, the restored native habitats are expected to provide better habitat for least Bell's vireo, and should result in the project sites supporting a higher number of nesting pairs. The removal of tamarisk is also expected to increase the area of surface water available for wildlife, and facilitate access for species such as bighorn sheep. Short-term impacts, which have the potential to occur during project implementation, include trampling from foot traffic during access to and from work within the project areas, damage to native vegetation within and adjacent to the work areas, and direct or indirect loss of occupied bird nests. However, the potential for these impacts has largely been avoided by including the project features listed above in the project description, and as mitigation in the following section. Potential impacts to barefoot (Switak's) banded gecko are not expected because its habitat only occurs adjacent to, but not within, the work areas. Potential impacts to nesting birds, particularly the least Bell's vireo, will be avoided by working during the non-nesting season. Any work needed during the nesting season will only occur with the approval of a biologist after surveys have indicated that least Bell's vireo are not in the area and there are no active nests of other species that may be impacted. In all cases, any work approved during the nesting season will be limited to hand work only (no power tools). Potential impacts to bighorn sheep are not expected since this species has not been seen in the work area for a number of years. Potential for impacts to native plants will be avoided with restrictions on herbicide spraying to eliminate drift onto non-target plants, by limiting access beyond existing roads to foot traffic only, and by allowing only minor trimming when necessary to gain access to tamarisk. Trimming will be controlled to allow only what is necessary to accommodate the width/height of a single person with equipment, and the same pathways will be used throughout the work to restrict the extent of adverse effects. Tamarisk clearing can be expected to increase available surface water for many forms of wildlife, and further improve connectivity by opening up the unnaturally dense tamarisk infested woodland which currently impedes wildlife movement. Potential impacts to any other sensitive species that may be encountered within the project limits will be avoided to the maximum extent possible. In no case are any impacts expected to be significant due to the nature and extent of the work activities.

Federal and State Jurisdictional Areas

As with the entire project site, except for the access roads and staging areas, all movement within DFG jurisdiction will be limited to foot traffic only. In addition, cut tamarisk will be removed by hand from any wet areas. This material will be distributed in adjacent upland areas to increase habitat diversity. Minor trimming of native plants within jurisdictional areas may occur if needed to gain access to tamarisk, but this will be limited to the width/height of a person and once established, the same paths will be used throughout the work.

Mitigation

This project is designed to provide an overall long-term positive effect on the ecosystem. Mitigation consists of project features to avoid short-term impacts that might occur during project implementation. These features include the following:

1. The initial tamarisk removal will occur from October 1 through March 14 to avoid potential impacts to nesting birds, particularly the endangered least Bell's vireo. Follow-up treatment of re-sprouts and seedlings within previously cleared areas will occur primarily from October 1 to March 14, but might be approved from March 15 to September 30, but only if surveys immediately preceding the work indicate that least Bell's vireo and other nesting birds will not be adversely affected by the work.
2. All tamarisk removal will be with hand-held tools, including chainsaws. And moving of cut tamarisk will also be done by hand. No vehicles will encroach into the desert riparian habitat
3. Proof of a current California Qualified Applicators License with certification in the Aquatic category will be required by those performing the work, as well as experience in both non-native plant control within native habitats and herbicide application in riparian or wetland sites.
4. Herbicides will not be applied in winds above 4 mph, and Garlon 4 will not be used in temperatures above 94°F to avoid accidental adverse effects on adjacent native plants.
5. Water from Vallecito Creek will not be used for any purpose related to this project. No herbicide mixing, loading or cleanup shall occur within the stream zone.
6. Access roads and staging areas will be restricted to existing roads and cleared areas (Figures 6 and 7). Only foot traffic (no vehicles) will be used beyond these areas. All equipment and vehicles brought to the site will be inspected and found to be weed-free prior to use on site. Chemical toilets will be provided for the work crews.
7. Cut tamarisk will be removed from wet areas and placed in upland habitats to increase habitat complexity. Cut tamarisk will not be placed in nearby areas that bighorn sheep would likely use as access points to the creek.

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Vallecito Creek Tamarisk Eradication

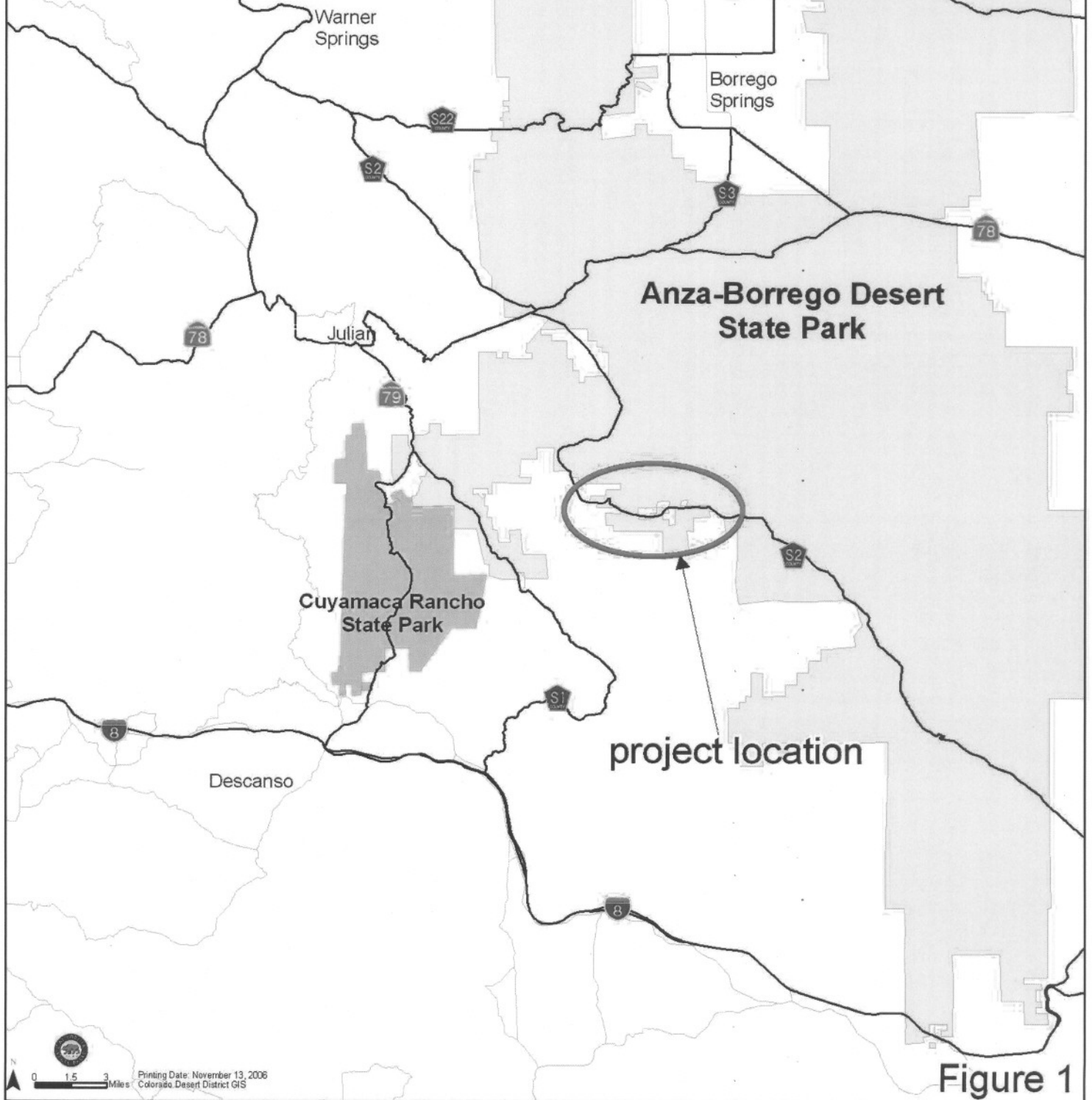
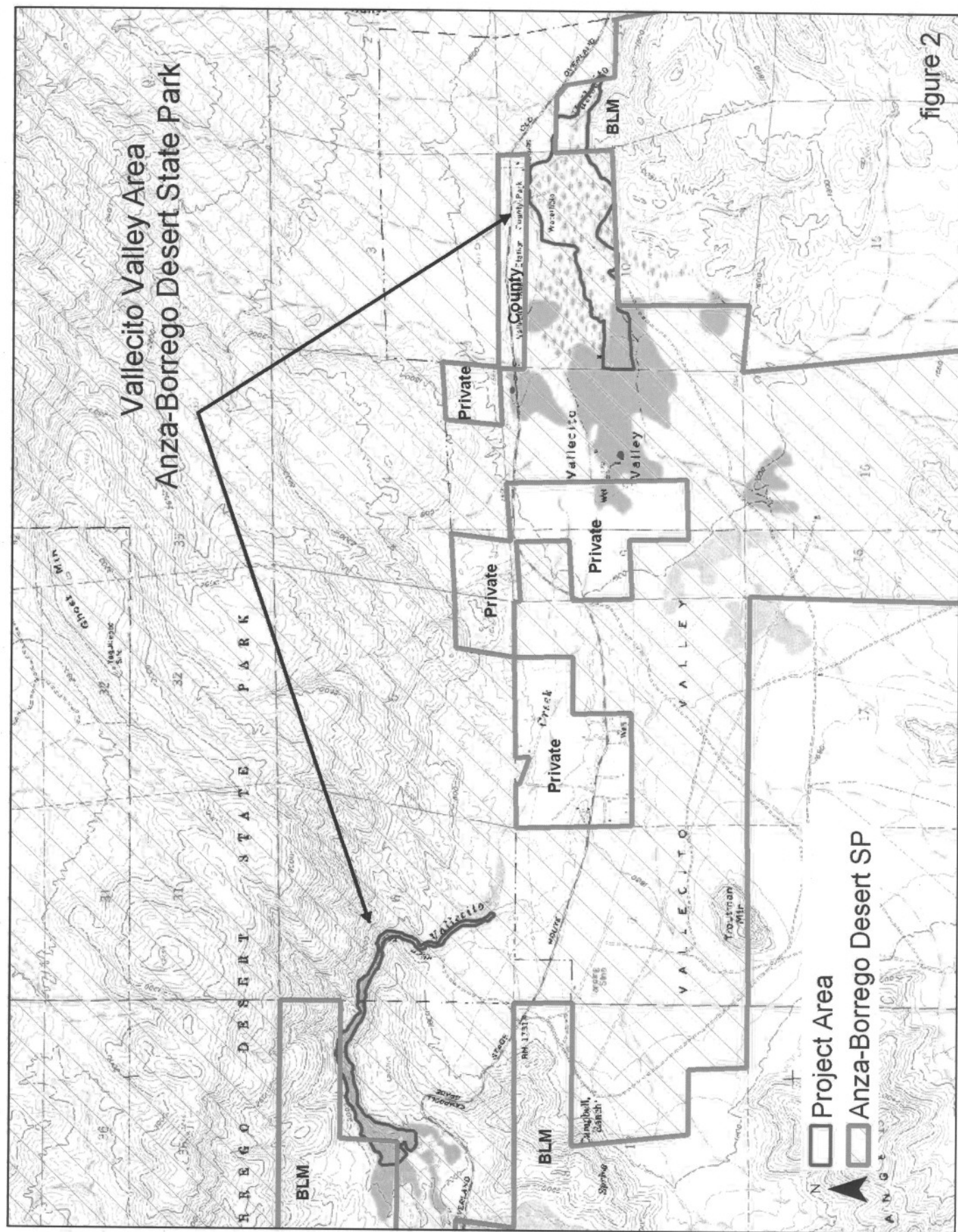


Figure 1



Campbell Grade Treatment Area

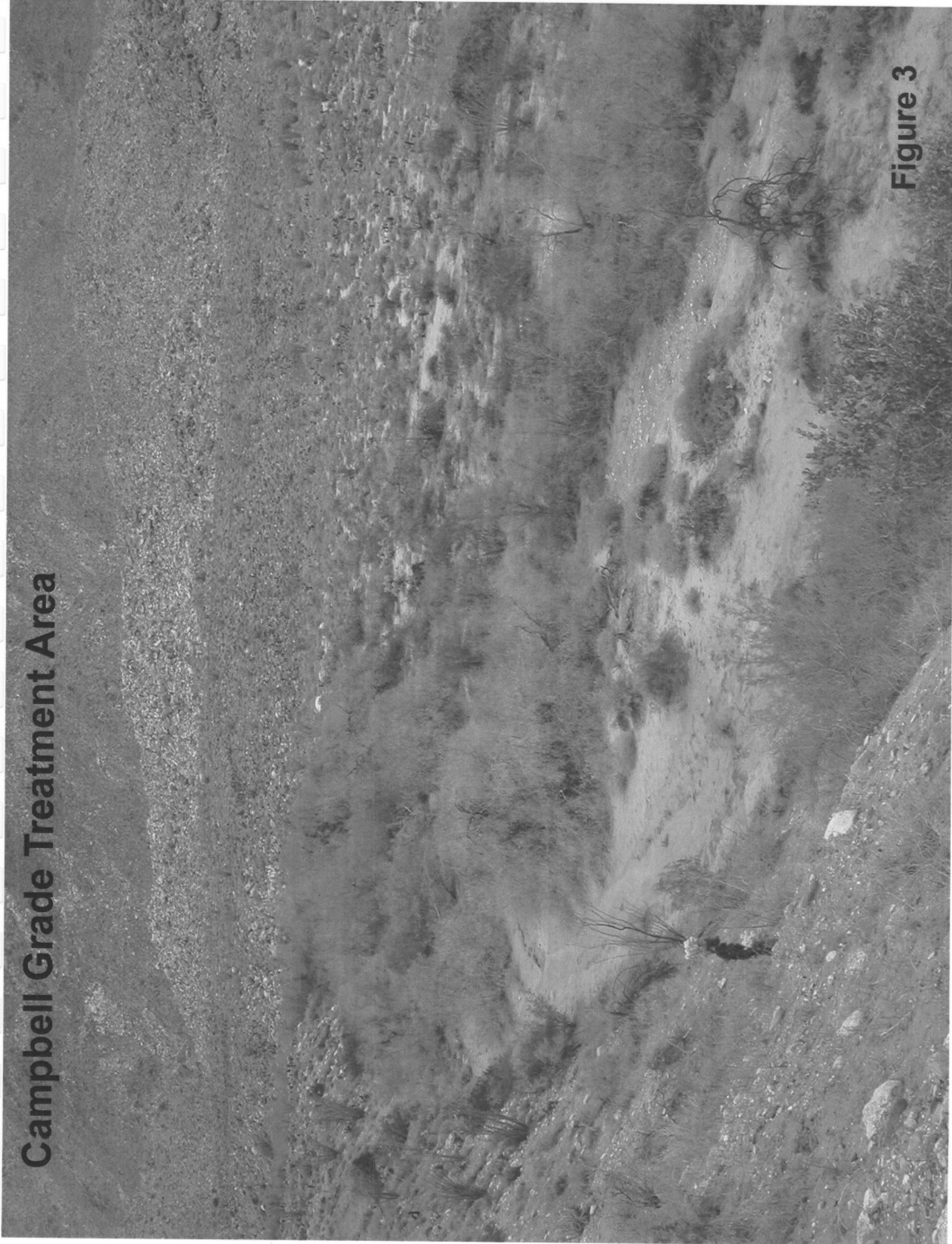


Figure 3

Vallecito Cienega Treatment Area



Figure 4

Vallecito Creek Tamarisk Density

site	density class	acres
all together	< 30 %	156.32
	> 30 %	30.14
		186.47 total
Campbell Grade	< 30 %	28.8
Campbell Grade	> 30 %	15.46
		44.26 total
Vallecito Cienaga	< 30 %	127.52
Vallecito Cienaga	> 30 %	14.68
		142.27 total

VallecitoTMXdensity
Tamarisk density class



< 30 %
> 30 %

Tamarisk

anzabnd0905
BLM

Figure 5

Vallecito Creek Tamarisk Eradication
(Campbell Grade)
Vehicle Access Points

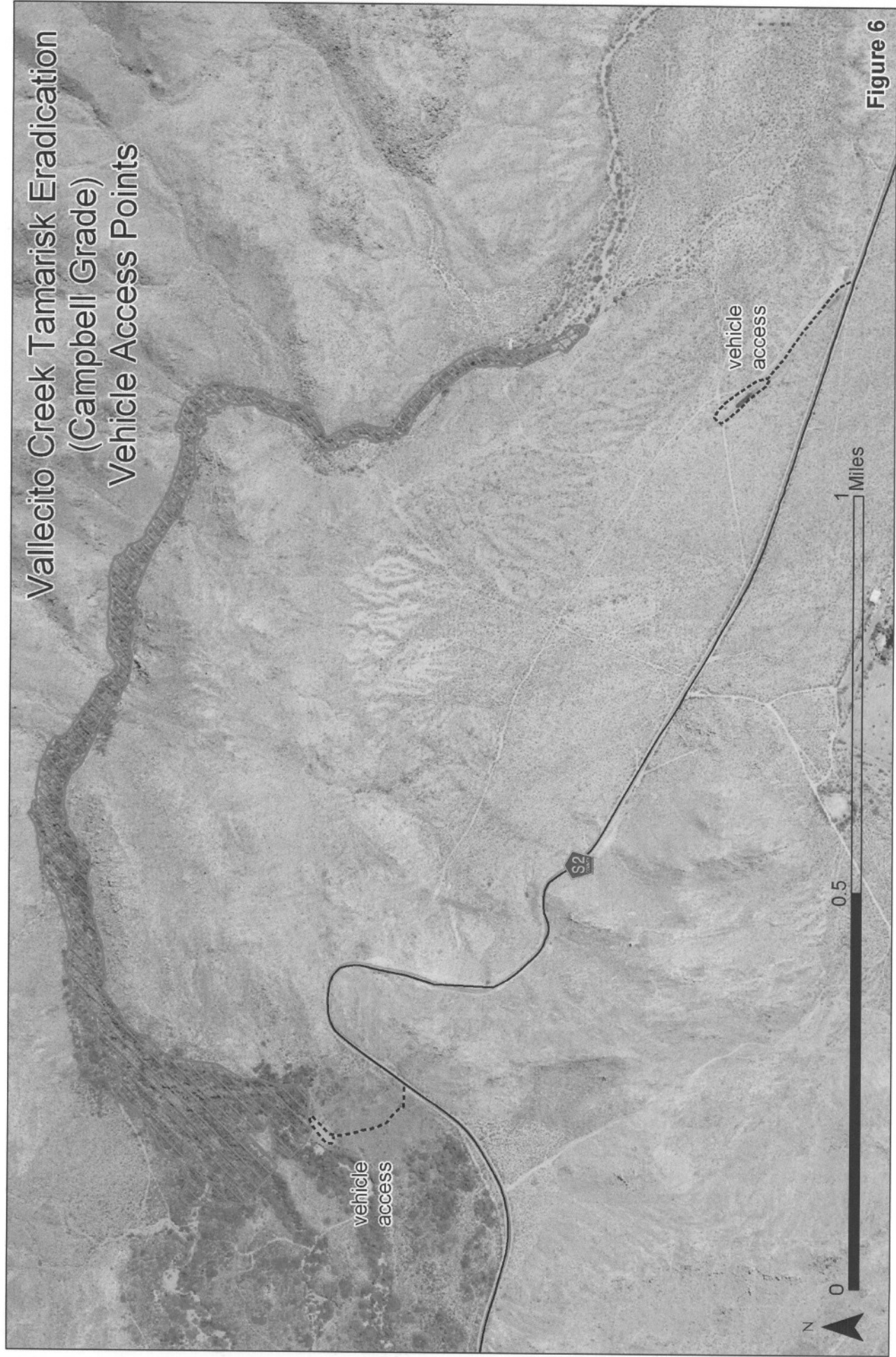


Figure 6

Vallecito Creek Tamarisk Eradication
(Vallecito Cienega)
Vehicle Access Points

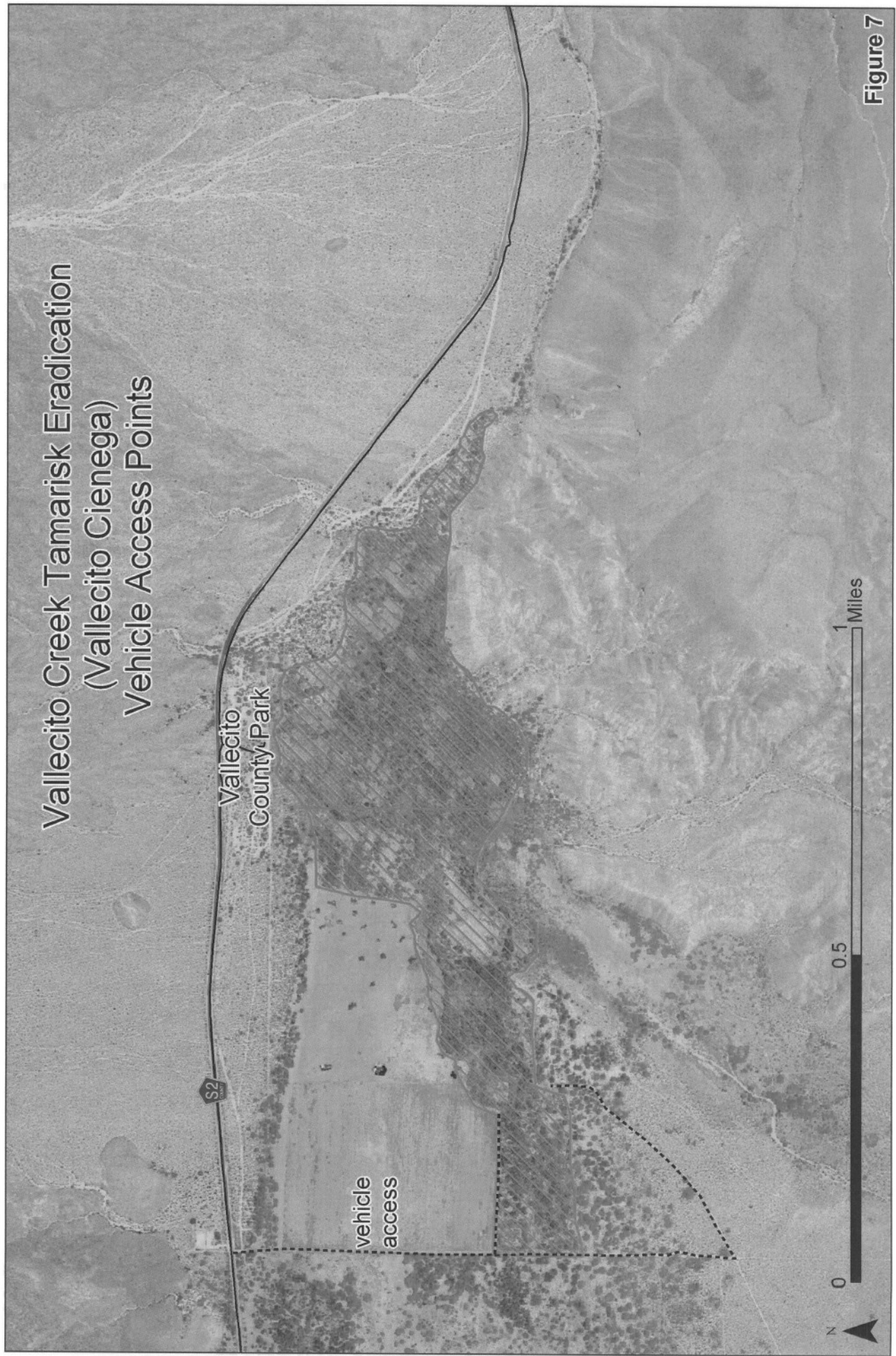


Figure 7

APPENDIX A

Plant and Animal Species Observed (or Known to Occur) within or adjacent to the Project Limits

PLANTS

GYMNOSPERMS

Ephedraceae

Ephedra sp.

Mormon tea

MONOCOTS

Agavaceae

Agave deserti ssp. *deserti*

desert agave

Cyperaceae

Schoenoplectus americanus

Olney's bulrush

[*Scirpus americanus*]

Poaceae

Distichlis spicata

saltgrass

Phragmites australis

common reed

Sporobolus airoides

alkali sacaton

Typhaceae

Typha sp.

cattail

DICOTS

Asteraceae

Ambrosia dumosa

burrobush

Ambrosia salsola var. *salsola*

cheesebush

Bahiopsis parishii [*Viguiera parishii*]

Parish's golden-eyes

Isocoma acradenia var. *eremophila*

alkali goldenbush

Encelia farinosa

brittlebush

[*Hymenoclea* s. var. *s.*]

Pluchea sericea

arrow weed

Boraginaceae

Heliotropium curassavicum

salt heliotrope

Bignoniaceae

Chilopsis linearis ssp. *arcuata*

desert willow

Cactaceae

Cylindropuntia bigelovii [*Opuntia bigelovii*]

teddy-bear cholla

Cylindropuntia ganderi var. *ganderi*

Gander's cholla

[*Opuntia acanthicarpa* var. *ganderi*]

Cylindropuntia xfosbergii [*Opuntia xfosbergii*]

Mason Valley cholla

O. bigelovii var. *hoffmannii*

Echinocereus engelmannii

Engelmann's hedgehog cactus

Ferocactus cylindraceus

barrel cactus

	<i>Opuntia basilaris</i> var. <i>basilaris</i>	beavertail cactus
	<i>Opuntia phaeacantha</i>	prickly-pear cactus
Chenopodiaceae		
	<i>Atriplex lentiformis</i>	big saltbush
	<i>Atriplex polycarpa</i>	many-fruited saltbush
	<i>Suaeda nigra</i> [<i>S. moquinii</i>]	bush seepweed
Fabaceae		
	<i>Acacia greggii</i>	catclaw acacia
	<i>Prosopis glandulosa</i> var. <i>torreyana</i>	honey mesquite
	<i>Prosopis pubescens</i>	screwbean mesquite
	<i>Psoralea schottii</i>	indigo bush
Fouquieriaceae		
	<i>Fouquieria splendens</i> ssp. <i>splendens</i>	ocotillo
Krameriaceae		
	<i>Krameria grayi</i>	white rhatany
Solanaceae		
	<i>Lycium fremontii</i>	Fremont's desert thorn
Salicaceae		
	<i>Salix</i> sp. (probably <i>S. laevigata</i>)	willow
Simmondsiaceae		
	<i>Simmondsia chinensis</i>	jojoba
Tamaricaceae		
	<i>Tamarix ramosissima</i>	tamarisk
Viscaceae		
	<i>Phoradendron californica</i>	desert mistletoe
Zygophyllaceae		
	<i>Larrea tridentata</i>	creosote bush

ANIMALS

Amphibians

Western toad	<i>Bufo boreas</i>
Red-spotted toad	<i>Bufo punctatus</i>
California chorus frog	<i>Pseudacris cadaverina</i>
Pacific chorus frog	<i>Pseudacris regilla</i>

Reptiles

Switak's (barefoot) banded gecko	<i>Coleonyx switaki switaki</i>
Peninsular leaf-toed gecko	<i>Phyllodactylus xantii nocticolus</i>
Common chuckwalla	<i>Sauromalus ater</i>
Northern desert iguana	<i>Dipsosaurus dorsalis dorsalis</i>
Common zebra-tailed lizard	<i>Callisaurus draconoides rhodostictus</i>
Southern desert horned lizard	<i>Phrynosoma platyrhinos calidiarum</i>
Yellow-backed desert spiny lizard	<i>Sceloporus magister uniformis</i>
Common side-blotched lizard	<i>Uta stansburiana</i>

Lyre snake	<i>Trimorphodon biscutatus vandenburghii</i>
Sonoran gopher snake	<i>Pituophis catenifer affinis</i>
San Diego gopher snake	<i>P. c. annectens</i>
California kingsnake	<i>Lampropeltis getula californiae</i>
Red coachwhip	<i>Masticophis flagellum piceus</i>
Rosy boa	<i>Lichanura trivirgata</i>
Red diamond rattlesnake	<i>Crotalus ruber ruber</i>
Southwestern speckled rattlesnake	<i>C. mitchelli pyrrhus</i>

Birds

Cooper's hawk	<i>Accipiter cooperii</i>
Greater roadrunner	<i>Geococcyx californianus</i>
Anna's hummingbird	<i>Calypte anna</i>
Costa's hummingbird	<i>Calypte costae</i>
Ladder-backed woodpecker	<i>Picoides scalaris</i>
Ash-throated flycatcher	<i>Myiarchus cinerascens</i>
Say's phoebe	<i>Sayornis saya</i>
Black phoebe	<i>Sayornis nigricans</i>
Loggerhead shrike	<i>Lanius ludovicianus</i>
Least Bell's vireo	<i>Vireo bellii pusillus</i>
Verdin	<i>Auriparus flaviceps</i>
Rock wren	<i>Salpinctes obsoletus</i>
Black-tailed gnatcatcher	<i>Polioptila melanura</i>
California thrasher	<i>Toxostoma redivivum</i>
Phainopepla	<i>Phainopepla nitens</i>
Common yellowthroat	<i>Geothlypis trichas</i>
Yellow-breasted chat	<i>Icteria virens</i>
Yellow warbler	<i>Dendroica petechia</i>
Summer tanager	<i>Piranga rubra</i>
Song sparrow	<i>Melospiza melodia</i>
Black-throated sparrow	<i>Amphispiza bilineata</i>
Blue grosbeak	<i>Passerina caerulea</i>
Bullock's oriole	<i>Icterus bullockii</i>
Lawrence's goldfinch	<i>Carduelis lawrencei</i>
Lesser goldfinch	<i>Carduelis psaltria</i>

Mammals

Desert cottontail	<i>Sylvilagus audubonii</i>
Black-tailed jackrabbit	<i>Lepus californicus</i>
California ground squirrel	<i>Spermophilus beecheyi</i>
Round-tailed ground squirrel	<i>Spermophilus tereticaudus</i>
Antelope ground squirrel	<i>Ammospermophilus leucurus</i>
Botta's pocket gopher	<i>Thomomys bottae</i>
Merriam's kangaroo rat	<i>Dipodomys merriami</i>
Desert woodrat	<i>Neotoma lepida</i>

Gray fox	<i>Urocyon cinereoargenteus</i>
Ringtail	<i>Bassariscus astutus</i>
Raccoon	<i>Procyon lotor</i>
Western spotted skunk	<i>Spilogale gracilis</i>
Bobcat	<i>Lynx rufus</i>
Mountain lion	<i>Puma concolor</i>
Mule deer	<i>Odocoileus hemionus</i>

APPENDIX B

**California Natural Diversity Database Records for the Aqua Caliente
Springs and Monument Peak USGS Quadrangles.**

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Scientific Name - Portrait

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 <i>Aspidoscelis hyperythra</i> orange-throated whiptail	ARACJ02060			G5	S2	SC
2 <i>Astragalus insularis</i> var. <i>harwoodii</i> Harwood's milk-vetch	PDFAB0F491			G5T3	S2.2?	2.2
3 <i>Ayenia compacta</i> ayenia	PDSTE01020			G4	S3.3	2.3
4 <i>Bursera microphylla</i> elephant tree	PDBUR01020			G4	S2.3	2.3
5 <i>Calliandra eriophylla</i> fairyduster	PDFAB0N040			G5	S2.3	2.3
6 <i>Chaenactis parishii</i> Parish's chaenactis	PDAST200D0			G3	S2.3	1B.3
7 <i>Chaetodipus fallax pallidus</i> pallid San Diego pocket mouse	AMAFD05032			G5T3	S3	SC
8 <i>Chorizanthe polygonoides</i> var. <i>longispina</i> long-spined spineflower	PDPGN040K1			G5T3	S2.2	1B.2
9 <i>Coleonyx switaki</i> barefoot banded gecko	ARACD01040		Threatened	G4	S1	
10 <i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010			G4T3T4	S2S3	SC
11 <i>Crotalus ruber ruber</i> northern red-diamond rattlesnake	ARADE02091			G4T3T4	S2?	SC
12 <i>Delphinium hesperium</i> ssp. <i>cuyamaca</i> Cuyamaca larkspur	PDRAN0B0U1		Rare	G4T2	S2.1	1B.2
13 <i>Dendroica petechia brewsteri</i> yellow warbler	ABPBX03018			G5T3?	S2	SC
14 <i>Desert Fan Palm Oasis Woodland</i>	CTT62300CA			G3	S3.2	
15 <i>Ericameria cuneata</i> var. <i>macrocephala</i> Laguna Mountains goldenbush	PDAST3L062			G5T2	S2.3	1B.3
16 <i>Grindelia hirsutula</i> var. <i>hallii</i> San Diego gumplant	PDAST470D4			G5T2	S2.2	1B.2
17 <i>Heuchera brevistaminea</i> Laguna Mountains alumroot	PDSAX0E050			G2	S2.3	1B.3
18 <i>Hulsea californica</i> San Diego sunflower	PDAST4Z030			G2	S2.1	1B.3
19 <i>Icteria virens</i> yellow-breasted chat	ABPBX24010			G5	S3	SC
20 <i>Lampropeltis zonata (pulchra)</i> California mountain kingsnake (San Diego population)	ARADB19063			G4G5	S1S2	SC
21 <i>Lanius ludovicianus</i> loggerhead shrike	ABPBR01030			G4	S4	SC
22 <i>Limnanthes gracilis</i> ssp. <i>parishii</i> Parish's meadowfoam	PDLIM02052		Endangered	G3T2	S2.2	1B.2
23 <i>Linanthus maculatus</i> Little San Bernardino Mtns. linanthus	PDPLM041Y0			G1	S1.2	1B.2

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Scientific Name - Portrait

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 <i>Linanthus orcuttii</i> Orcutt's linanthus	PDPLM090X0			G4	S2.3	1B.3
25 <i>Lotus haydonii</i> pygmy lotus	PDFAB2A0H0			G3	S2.3?	1B.3
26 <i>Lupinus excubitus</i> var. <i>medius</i> Mountain Springs bush lupine	PDFAB2B1J5			G4T2T3	S2.3	1B.3
27 <i>Matelea parvifolia</i> spearleaf	PDASC0A0J0			G5?	S2.2	2.3
28 <i>Mentzelia hirsutissima</i> hairy stickleaf	PDLOA030K0			G3?	S2S3	2.3
29 <i>Monardella macrantha</i> ssp. <i>hallii</i> Hall's monardella	PDLAM180E1			G5T3	S3.3	1B.3
30 <i>Monardella nana</i> ssp. <i>leptosiphon</i> San Felipe monardella	PDLAM180F2			G4G5T2	S2.2	1B.2
31 <i>Myotis thysanodes</i> fringed myotis	AMACC01090			G4G5	S4	
32 <i>Onychomys torridus ramona</i> southern grasshopper mouse	AMAFF06022			G5T3?	S3?	SC
33 <i>Phrynosoma coronatum</i> (<i>blainvillii</i> population) Coast (San Diego) horned lizard	ARACF12021			G4G5	S3S4	SC
34 <i>Poa atropurpurea</i> San Bernardino blue grass	PMPOA4Z0A0	Endangered		G2	S2.2	1B.2
35 <i>Scutellaria bolanderi</i> ssp. <i>austromontana</i> southern skullcap	PDLAM1U0A1			G4T2	S2.2?	1B.2
36 <i>Selaginella eremophila</i> desert spike-moss	PPSEL010G0			G4	S2.2?	2.2
37 <i>Senna covesii</i> Coves's cassia	PDFAB491X0			G5?	S2.2	2.2
38 <i>Spermolepis echinata</i> bristly scaleseed	PDAP123020			G5	S1.3	2.3
39 <i>Streptanthus campestris</i> southern jewel-flower	PDBRA2G0B0			G2	S2.3	1B.3
40 <i>Symphyotrichum defoliatum</i> San Bernardino aster	PDASTE80C0			G3	S3.2	1B.2
41 <i>Taxidea taxus</i> American badger	AMAJF04010			G5	S4	SC
42 <i>Thamnophis hammondi</i> two-striped garter snake	ARADB36160			G3	S2	SC
43 <i>Thermopsis californica</i> var. <i>semota</i> velvety false lupine	PDFAB3Z053			G3T2	S2.1	1B.2
44 <i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	

APPENDIX C

CULTURAL RESOURCES MOA ON HUMAN REMAINS

MEMORANDUM OF AGREEMENT

PROTOCOL, IN COMPLIANCE WITH CALIFORNIA HEALTH AND SAFETY CODE SECTION 7050.5, FOR OBTAINING EXPERT IDENTIFICATION OF POSSIBLE HUMAN REMAINS IDENTIFIED WITHIN COLORADO DESERT DISTRICT, CALIFORNIA STATE PARKS June 10, 2006

Because California State Parks, Colorado Desert District fully complies with California Health and Safety Code Section 7050.5 (regarding the procedures to be implemented when human remains are discovered in the field) and

Because California State Parks Colorado Desert District archaeologists routinely encounter burned and unburned bone fragments during field work that require an expert in human osteology to determine if they are human and

Because California State Parks, Colorado Desert District recognizes that it is not possible for human osteology experts to make repeat visits to archaeological sites in remote areas of the District's Parks to identify findings of bone,

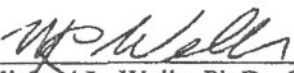
The Colorado Desert District of California State Parks therefore will adhere to the following protocol:

When a California State Parks archaeologist or a qualified archaeologist working under a California State Parks "Archaeological Permit to Conduct Archaeological Investigations (DPR412)" discovers bone fragments in an archaeological context that require expert identification to determine if they are human,


- 1) The archaeologist will document the discovery location using GPS unit and camera.
- 2) The archaeologist or the project Native American monitor may take a sample of the bone fragments to the San Diego Museum of Man (Rose Tyson) or San Diego State University, Department of Anthropology (Dr. Arion Mayes) for identification. The archaeologist will also immediately notify California State Parks District Cultural Resources Staff (if they are not in the field) of the find and the actions taken. State Parks District Cultural Resources Staff will ensure that the Colorado Desert District Sector/District Superintendent is also notified.
- 3) If the bone is determined not to be human, the Archaeologist or Native American Monitor will reclaim the bone and either return it to the field or treat it in accordance with standard archaeological practices.
- 4) If the remains are determined to be human, recent, and subject to provisions of law concerning investigation of the circumstances, manner, and cause of any death, they will be transferred to the Coroner.
- 5) If the remains are determined to be human and of Native American origins, the bone will be reclaimed from the expert osteologist by the Archaeologist or Native American Monitor. If the

location of the original interment will not be subject to disturbance, the remains will be returned to the place of their original interment, as recorded with GPS, in coordination with a Native American monitor. A DPR site form will be completed for this location to ensure appropriate future management. In accordance with Health and Safety Code 7050.5, the California State Parks archaeologist will notify the Coroner who will then notify the Native American Heritage Commission of the find. If the location of the original interment may be subject to disturbance, the Coroner will notify the Native American Heritage Commission of the find and California State Parks, Colorado Desert District will then coordinate disposition of the remains with the Native American Heritage Commission in compliance with Public Resources Code 5097.98.


We, as signatories of this Memorandum of Agreement, concur with its provisions and will follow its stipulations, as described above.


Michael L. Wells, Ph.D., Colorado Desert District Superintendent,
California Department of Parks and Recreation

7/10/06
Date


Cal Vine, Supervising Medical Examiner Investigator,
San Diego County Medical Examiners Office

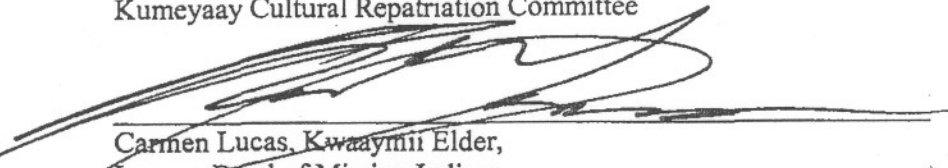
7-19-06
Date


Larry Myers, Executive Secretary,
Native American Heritage Commission

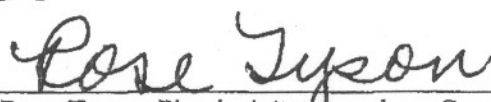
8/2/06
Date


Steve Banegas, Chair,
Kumeyaay Cultural Repatriation Committee

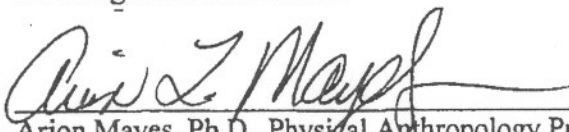
7-27-06
Date


Carmen Lucas, Kwaaymii Elder,
Laguna Band of Mission Indians

7-27-06
Date


Rose Tyson, Physical Anthropology Curator,
San Diego Museum of Man

July 19, 2006
Date


Arion Mayes, Ph.D., Physical Anthropology Professor,
San Diego State University

7/20/06
Date

(signatures digitally compiled on this page from separate original signature pages)

APPENDIX D

MITIGATION MONITORING AND REPORTING PROGRAM

**Vallecito Creek Watershed Rehabilitation Project
Mitigation Monitoring and Reporting Plan
April 2007**

Mitigation Measure	Timing	Responsible for Implementing Mitigations	Responsible for Insuring Implementation	Required for Task to be Complete	Verification and Implementation	
					Date Completed	Status / Comments
Biological Resources						
Tamarisk removal will occur between October 1st and March 14th to avoid the breeding season of the least Bell's vireo, as well as other breeding birds that may utilize the desert riparian habitat. After initial treatment, if it is deemed important to the success of the rehabilitation that follow-up removal of untreated tamarisk be carried out after March 14th, surveys will be conducted to confirm that no breeding birds are nesting within the treatment area. If breeding birds are utilizing the proposed treatment area, treatment will be delayed until nesting activities have been completed.	October 1 - March 14	Project Manager, Senior Environmental Scientist	Project Manager, Senior Environmental Scientist	Project Manager will insure that tamarisk removal contract includes provisions limiting work to October 1 to March 14th.		
All vehicles traveling to the treatment locations will access the site only on existing dirt roads. All staging of equipment or location of portable toilets will be confined to existing dirt roads or disturbed areas. No vehicles will enter the desert riparian habitat.	October 1 - March 14	Project Manager, Senior Environmental Scientist	Project Manager, Senior Environmental Scientist	Project Manager will insure that maps showing vehicle access and staging areas are provided to all contract personnel before work begins.		
Access to the specific treatment sites will be on foot. Trails from the staging areas to the work sites will be planned with CDPR personnel to minimize disturbance to the native vegetation, and any necessary trails created by trimming native vegetation will be the minimum width (single person) to safely allow access.	October 1 - March 14	Project Manager, Senior Environmental Scientist	Project Manager, Senior Environmental Scientist	Project Manager will work with contractor in the field to select access trail routes before tamarisk removal begins. Project Manager will monitor work to assure only appropriate access trails are used.		
While leaf litter and duff will be raked from around tamarisk trees to allow for appropriate cutting and herbicide treatment, no soil disturbance will occur during treatment.	October 1 - March 14	Project Manager, Senior Environmental Scientist	Project Manager, Senior Environmental Scientist	Conditions will be included by the Project Manager into all tamarisk removal contracts. Project Manager will monitor tamarisk removal procedures to assure that conditions are adhered to.		

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					Date Completed	Status / Comments
Cut tamarisk will be left in the treatment areas, which will reduce or eliminate damage to the desert riparian habitat that would occur from dragging or use of heavy equipment if the material was removed, and should also provide some additional cover for certain wildlife species. Cut material will be moved by hand out of any wetland areas to avoid compromising water quality.	October 1 - March 14	Project Manager, Senior Environmental Scientist	Project Manager, Senior Environmental Scientist	Project Manger will coordinate with contractor to establish appropriate sites for deposition of cut tamarisk that protect wetlands and access for bighorn sheep.		
Any cut tamarisk that is moved will not be deposited in areas that may act as movement corridors or trails for Peninsular bighorn sheep.	October 1 - March 14	Project Manager, Senior Environmental Scientist	Project Manager, Senior Environmental Scientist	Project Manger will coordinate with contractor to establish appropriate sites for deposition of cut tamarisk that protect wetlands and access for bighorn sheep.		
Only experienced personnel with a current California Qualified Applicators License, with certification in the "Aquatic" category, will conduct the tamarisk removal.	October 1 - March 14	Project Manager, Senior Environmental Scientist	Project Manager, Senior Environmental Scientist	Selection of contractor that meets experience and licensing requirements.		
Herbicides will not be applied in winds above 4 mph, and Garlon 4 will not be used in temperatures above 940F to avoid accidental adverse effects on adjacent native plants.	October 1 - March 14	Project Manager, Senior Environmental Scientist	Project Manager, Senior Environmental Scientist	Incorporation of herbicide application requirements/constraints into project contract.		
Water from Vallecito Creek will not be used for any purpose related to this project. No herbicide mixing, loading, or cleanup shall occur within the stream zone.	October 1 - March 14	Project Manager, Senior Environmental Scientist	Project Manager, Senior Environmental Scientist	Incorporation of conditions into the State Parks contract. Monitoring of the contractor by the Project Manager.		
Cultural Resources						
Vehicle access to the treatment sites will be confined to existing roads. All staging of equipment and portable toilet facilities will also be confined to dirt roads or already disturbed locations.	October 1 - March 14	Project Manager, Senior Environmental Scientist, Cultural Resources Monitor	Project Manager, Senior Environmental Scientist	Incorporation of conditions into the State Parks contract. Monitoring of the contractor by the Project Manager.		

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No ground disturbance activities will be used to remove tamarisk . All trees will be cut at ground level, with herbicide-treated root stumps left in place.	October 1 - March 14	Project Manager, Senior Environmental Scientist, Cultural Resources Monitor	Project Manager, Senior Environmental Scientist	Incorporation of conditions into State Parks contract. Monitoring of the contractor by the Project Manager and the Cultural Resources Monitor.		
A qualified cultural resources monitor(s) will be on-site throughout the course of the tamarisk removal project to assure that no ground disturbances occur, that no collection of artifacts occurs by contractors, that cultural sites are avoided in planning foot access routes to the various work-sites, and that treated areas are surveyed for cultural resources to delimit and record any new sites that are exposed.	October 1 - March 14	Cultural Resources Monitor	Project Manager, Senior Environmental Scientist	Incorporation of conditions into the State Parks contract. State parks hiring or assigning a qualified Cultural Resources Monitor to be present during tamarisk removal activities.		
If any evidence of human remains are detected the project will immediately stop work in the immediate area. DPR, Colorado Desert District, will abide by the conditions and protocols listed in the Memorandum of Agreement (June 10, 2006) for compliance with California Health and Safety Code Section 7050.5 for obtaining expert identification of possible human remains. The final disposition of any human remains will also be in accordance with the MOA. The project will continue once the appropriate disposition of any human remains is completed.	October 1 - March 14	Cultural Resources Monitor	Project Manager, Senior Environmental Scientist	Incorporation of conditions into the State Parks contract. State parks hiring or assigning a qualified Cultural Resources Monitor to be present during tamarisk removal activities.		